

1. BOSC 2017 Nominations

Self Nomination:

Yes

Nominator Information

First Name

Last Name

Nominator Title

Street Address

City

State

Postal Code

Email Address

Phone Number

Mobile Phone

Nominee Information

First Name

Ponisseril

Last Name

Somasundaran

Nominee Title

President(Somasundaran, Inc); Director, NSF Industry/University Center & LVD Krumb Prof, Dept Earth & Environmental Eng< Columbia U.

Street Address

Exemption 6

Employment Information

Place of Employment/Work:

Columbia University

Work Street Address

724 Route 9W; 500 W.120 st

Work City

Nyack

Work State:

New York

Work Postal Code

10960

Work Phone Number

212-854-2926

Work Email Address

ps24@columbia.edu

Sector

Other - Write In (Required): Industry & Academe

Qualifications**Primary Area(s) of Expertise**

Environmental Engineering:

Solids and Hazardous waste Management; Surface and Colloid chemistry, Nanotechnology and Ecotoxicity

Committee Preference(s)

Executive Committee

Air, Climate, and Energy Subcommittee

Chemical Safety for Sustainability and Human Health Risk Assessment Subcommittee

Safe and Sustainable Water Resources Subcommittee

Statement of Interest

I am interested in serving in BOSC or SAB as I believe I contributed significantly as Chair of the Chemical Safety committee and as a team member of the Executive committee

Skills/qualifications related to committee preference(s) specified

Background, Skills, and Experience that would contribute to the Diversity of the Chartered SAB:

Training related to the environment includes: Education and training in Chemistry, Mineral Engineering, Chemical Engineering, Biochemistry (at National Chemical Laboratory, Pune), Tobacco and Lung surfactant Science (at Reynolds Inc) and now as professor in Columbia's Department of Earth and Environmental Engineering. His research has been concerned with a wide spectrum of environmental problems including Greener Chemistry, (personal care & mining), enhanced oil recovery, oil spill*, remediation, tar sands, coal cleaning, sludge treatment, waste water treatment (heavy metals), and nanotoxicity. Currently he teaches a course on "Solids and Hazardous Waste Management." He has recently participated in several meetings/ workshops on environmental problems (Oil Spill - May 2010, EPA Administrator/Coast Guard/NOAA); Science and Technology of Dispersants Relevant to Deep Sea Oil Releases), 2010, NSF, Gulf spill Exotox (September 2010, NCEAS), Chair of symposium on Separation Techniques to Meet Oil Spill Challenges (SME Annual meeting, March 2011); In collaboration with UCLA (Fate and Transport of Nanoparticles in Environment Waterways), Under CPaSS Industry/University Joint Consortium (Understanding of the Impact of Nanoparticles on Proteins).

*Link to NY Times and National Geographic articles:

<http://www.nytimes.com/gwire/2011/04/20/20greenwire-scientists-brew-green-dispersants-in-gulf-spill-37018.html>; <http://news.nationalgeographic.com/news/2011/04/110405-nsf-oil-somasundaran-video>; See

who is who in the world,.

Also featured in Stephen Hawking's Brave New World episode on oil spill remediation using microbial biosurfactants

Other Relevant Information

I served one term in BOSC as chair of CSS and HRA and believe contributed and unique provided expertise in the area of chemicals

CV/Resume URL

www.columbia.edu/~ps24/

2. CV/Resume

Please upload your CV/ Resume.

[CV_for_updatedoc.doc](#)

3.

BOSC Nomination

Jun 08, 2017 21:32:42 Success: Email Sent to: tracy.tom@epa.gov

4. Thank You for your Submission!

P. SOMASUNDARAN

Director, I/UCRC for Advanced Studies in Novel Surfactants

La von Duddleson Krumb Professor

Columbia University

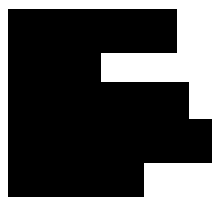
500 W 120th Street, New York, N.Y. 10027

Phone: (212) 854-2926

FAX: (212) 854-8362

E-mail: ps24@columbia.edu

Exemption
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Education:

Ph.D.	:	University of California, Berkeley	1964
M.S.	:	University of California, Berkeley	1962
B. E.	:	Indian Institute of Science, Bangalore, India	1961
B.S.	:	Kerala University, India	1958

Experience:

1998 - Present:

Director, National Science Foundation: Industry/University Cooperative Research Center for Advanced Studies in Novel Surfactants

1988 - 1997:

Chairman Henry Krumb School of Mines, Dept. of Min., Met., & Mnrl. Engg., Columbia University

1987 - Present:

Director Langmuir Center for Colloids & Interfaces, Columbia University

1983 - Present:

La von Duddleson Krumb Professor of Mineral Engineering, Columbia University

1978 - 1983:

Professor of Mineral Engineering, Columbia University

May - July 1977:

Visiting Scientist, University of Melbourne

January - April, 1977:

Visiting Professor/Scientist, Indian Institute of Science, Bangalore

1970 - 1978:

Associate Professor of Mineral Engineering, Columbia University

May - July 1976:

Acting Chairman, School of Mines, Columbia University

1967 - 1970:

Research Chemist, R.J. Reynolds Industries, Inc., Winston-Salem

1965 - 1967:

Senior Research Engineer, Intern. Minerals & Chemical Corp., Libertyville, IL

1961 - 1964:

Teaching and Research Assistant at the University of California, Berkeley

1958 - 1959:

Senior Laboratory Assistant at the National Chemical Laboratory, Poona, India

Awards and Recognitions:

Years	Rewards
2015	Recipient of the 2015 Alexander Schwarzkopf Prize for Technological Innovations, Washington, D.C., January 2015
2012	Appointed Honorary Advisor to China National Electric Apparatus Research Institute Co Ltd, Guangzhou, China, May 2012
2010	Title of Padma Shri by the Indian government, 2010 Member of the Advisory Body of MET's Engineering College, Mala, India, December 2010
2009	Inducted as a Fellow of the American Institute of Chemical Engineers (AIChE) at the AIChE Annual Meeting, Nashville TN; November 8-13, 2009 ACS Division of Colloid and Surface Chemistry: In recognition of outstanding service as Chair of the 83rd Colloid and Surface Science Symposium, New York, June 14-19, 2009.
2008	Foreign Member of Balkan Academy of Science on Mineral Technologies, Turkey - 2008
2007	Engineer of the Year Award, by the Malayalee Engineers Association in North America, Rolling Meadows, IL, November 3, 2007 Columbia Alumni Association and Asian Columbia Alumni Association Distinguished Alumni Award for outstanding achievements and commitment to Excellence, 2007.

2006	AIME Mineral Industry Education Award, 2006
2005	<p>IMPC Steering Committee, sole US representative, Cape Town, South Africa.</p> <p>Keynote lecture at the Centenary of Flotation Symposium, Brisbane, Australia, June 6-9, 2005</p> <p>Invited speaker at the Beijing General Institute of Mining and Metallurgy, Beijing, China, May 17, 2005.</p> <p>Keynote speaker at the Cosmetic and Toiletries Magazine's 2005 Advanced Technology Conference, Berlin, Germany, April 9-13, 2005</p> <p>Lead-off speaker at the 3rd Pravasi Bharatiya Divas Conference, Mumbai, India, January 7-9, 2005.</p>
2004	Plenary lecture at the 10th International Mineral Processing Symposium, Cesme, Turkey, October 7, 2004.
2003	<p>Opening keynote lecture: 11th National Conference on Surfactants, emulsions and biocolloids, Institute of Chemical Technology, Mumbai, India, December 11-13, 2003</p> <p>Distinguished speaker in Metal Science and Engineering, Penn State University, University park, PA April 22, 2003</p>
2001	<p>Appointed Honorary professor at Wuhan Institute of Chemical Technology, July 2001</p> <p>Keynote speaker and honorary Chair of the International Nanomaterials & Nanotechnology Conference in Beijing, China. Also met Chinese President Jiang Zemin, July 2001</p>
2000	Elected as foreign member to the Russian Academy of Natural Sciences, 2000
1998	Foreign Member of Chinese Academy of Engineering, 1998
1993	Chairman, Engineering Foundation Board, 1993 - Present
1992	Frank F. Aplan Award, Engineering Foundation, 1992.
1991	<p>Honorary Research Advisor, Beijing General Research Institute of Mining and Metallurgy, Beijing, China, 1991.</p> <p>The State of New Jersey Senate Leadership Citation, 1991</p>
1990	<p>Plenary Lecture, 119th Annual AIME/SME Meeting, Utah, 1990.</p> <p>Ellis Island Medal of Honor for Distinguished Americans, 1990</p> <p>First Brahm Prakash Chair, Indian Institute of Science, Bangalore, 1990.</p>
1989	Distinguished Alumnus Award, Indian Institute of Science, Bangalore, 1989.
1988	<p>Honorary Professor, Central University of Technology, Changsha, China, 1988-1993</p> <p>Plenary Lecture, XVIth International Mineral Processing Congress, Stockholm, Sweden, 1988.</p> <p>Henry Krumb Lecturer Award, AIME, 1988</p>

	Honor Award, Association of Indians in America, 1988.
1987	Robert Richards Award, Soc. of Min., Met. & Mnrl. Eng., 1987 A.E. Taggart Award, Soc. of Min., Met. & Mnrl. Eng., 1987. Award of Excellence, V.H.P. of America, Inc., July, 1987
1985	Award for Achievements in Applied Science, 2nd World Malayalam Conference, Washington, D.C., August, 1985 National Academy of Engineering Member, 1985
1984	Keynote lecture, Colloque-bilan "Interactions Solide-Liquide", Nancy, France, 1984. Plenary lecture (presented in absentia) International Conf. on Recent Advances in Mineral Science and Technology, Johannesburg, 1984.
1983	Plenary lecture, Pacific Region Meeting of Fine Particle Society, 1983. Distinguished Member, Soc. of Min., Met. & Mnrl. Engrg., 1983 Mill Man of Distinction Award, Soc. of Min., Met. & Mnrl. Eng., 1983
1982	Antoine M. Gaudin Award, Soc. of Min., Met. & Mnrl. Eng., 1982
1981	Foreign Guest Lecturer at the Rehbindar Symposium, USSR Academy of Sciences, Moscow, 1981
1980	Keynote lecturer at the Intern. Conf. on Complex Sulfides, Rome, 1980 Publications Board Award, Soc. of Min., Met. & Mnrl. Eng., 1980 Most Distinguished Achievement in Engineering (AINA), 1980
1979	Keynote lecturer, Int. Symp. on Resources Engineering, Bombay, 1979 Plenary lecturer at the XIII Intern. Mineral Proc. Cong. Warsaw, 1979
1978	Soc. of Min., Met. & Mnrl. Eng., Best Presentation Award for the paper, "Stabilization, Flocculation and Selective Flocculation of Mineral Suspensions Using Polymers" by G.C. Sresty, P. Somasundaran, and C.C. Gryte, 1978
1977	Opening lecturer, Symp. on Colloid and Surface Chemistry of Mineral Flotation, Melbourne, 1977 University of Melbourne Fellowship Award at the School of Chemistry, University of Melbourne, 1977 Keynote lecturer at the Conference on Non-Renewable Resources, Bangalore, 1977
1961	Prime Minister Nehru Scholarship for higher studies abroad, 1961 Tata Educational Award for higher studies, 1961
1960	Merit Scholarship from Indian Institute of Science on the basis of rank in a nationally selected class of 24, 1960

Grants:

American Iron and Steel Institute
Amoco Production Company
Chevron Oil Field Research Company

Marathon Oil Company
Mobil Development Company
National Institutes of Health

Department of Energy	National Science Foundation
Exxon Enterprises	Shell Development Company
Exxon Research and Engineering	Standard Oil of Ohio
Fellow, Institution of Mining and Metallurgy (London)	Texaco Inc.
Gulf Research and Development Company	Union Carbide Corporation
International Nickel Company	Union Oil Company

List of Research Grants:

CURRENT:

Source of Support	Title	Contract No.	Period Covered	\$ Award \$
NSF-IUCRC	Center for Advanced Studies in Novel Surfactants / Industrial Participants	SSICINDUSTRIAL-KRUM	01/01/98 - 12/31/08	1,239,000.00
U of FL	Project 1: Synthesis and Physiochemical Characterization of Novel Nanoparticles/ Hydrophobically – Modified Polyacrylamide Microgels. Project 2: Role of Polymer Conformation: Fundamental Studies on New Reagents for Dispersion, Consolidation and Redispersion of Concentrated Slurries.	UFLRDA P.O. # 465964	06/01/01 - 09/30/05	382,943.00
NSF	Modeling Flocculation-dispersion of Colloidal Suspensions in a Particle Population Balance Framework	INT-01-17622	08/15/01 - 07/31/05	44,639.00
NSF	Novel Surface Active Polymers Using Biocatalysis: NSF IUCRC	EEC-01-24037	08/15/01 - 07/31/05	75,000.00

	COLUMBIA/PUNY			
NSF	Industry/University Cooperative Research Center for Advanced Studies in Novel Surfactants	EEC-03-28614	06/01/03 - 05/31/08	500,000.00
DOE	Mineral-Surfactant Interactions for Minimum Reagents precipitation and Adsorption for Improved Oil Recovery	DE-FC-26-03NT15413	09/30/03 - 09/29/06	799,605.00
NSF	Fluorescence Spectrophotometer to Investigate Nanostructures at Interfaces	CTS-04-18384	07/01/04 - 06/30/05	94,836.00

Professional:

2011	<p>Member, Engineering Conference International, Board of Directors Annual Meeting, January 18, 2011</p> <p>Member, International Advisory Committee for MPT 2011, Udaipur, India, October 20-22, 2011</p> <p>Member, Canadian Center of Academic Arts and Science as of March 25, 2011</p> <p>Member, Board of Advisors Meeting of the Department of Chemical and Biomolecular Engineering, Tulane University, New Orleans, LA, April 7, 2011</p> <p>Member, Hoover Medal Board of Awards, New York, October 6, 2011</p> <p>Instructor, "Nano 102 – Nanoparticle Synthesis and Processing Issues" Workshop II at Nanotechnology 2011 Conference and Workshops, New York, November 1, 2011</p> <p>Member, Board of Advisors Meeting of the Department of Chemical and Biomolecular Engineering, Tulane University, New Orleans, LA, November 18, 2011</p> <p>Chair, session at International Conference on Wireless Technologies for Humanitarian Relief (ACWR2011), Amrita University, Amritapuri, India, December 21, 2011</p>
2010	<p>Panelist, Panel Discussion on "Water Related Issues Concerning India," at the 3rd International Perspective on Current & Future State of Water Resources & the Environment, Chennai, India, January 7, 2010</p> <p>Participant, Sub-Sea and Sub-Surface Oil and Dispersant Detection Sampling and Monitoring Strategy – Unified Command, Federal Agencies and Academic Partners Meeting, Tulane University, New Orleans LA, September 1, 2010</p> <p>Participant, NCEAS Gulf Oil Spill Ecotoxicology Working Group's first meeting at</p>

	<p>Dauphin Island Sea Lab, Mobile AL, September 14-17, 2010</p> <p>Technical Advisor, Mineral and Metallurgical Processing Division Executive Committee, 2010 Mid-Year Meeting, Philadelphia PA, September 18, 2010</p> <p>Participant, Workshop on “Science and Technology of Dispersants Relevant to Deep Sea Floor Oil Releases,” Arlington, VA, September 22, 2010</p> <p>Honorary professor, at Wuhan Institute of Chemical Technology, China</p>
2009	<p>Panelist, “Material Characterization & Preparation” protocol panel discussion, at the Center for the Environmental Implications of NanoTechnology (CEINT) Meeting, Washington, DC, September 10, 2009</p> <p>Defense Examiner at Lulea University of Technology, Sweden, November 23-28, 2009</p> <p>Dissertation Sponsor for students in the PhD program in Chemical Engineering, Columbia University</p>
2006	<p>Judge: A.I. Levorsen Memorial Award, at the AAPG Rocky Mountain Section Annual Meeting, Billings, Montana; June 11-13, 2006.</p> <p>Panelist, National Science Foundation Review Panel for Fiscal Year 2006 Unsolicited Proposals in the NSF Particulate & Multiphase Process Program, Arlington, VA, January 10 – 11, 2006.</p> <p>Technical Content Adviser, MPD Executive Committee, SME</p> <p>Evaluator of proposals submitted to the Swedish Foundation for Strategic Research</p>
2005	<p>Panelist, National Science Foundation Small Business Innovative Research/Small Business Technology Transfer (SBIR/STTR) Panel Meeting, Arlington, VA, September 1, 2005</p>
2004	<p>Panelist “Superfund Basic Research and Training Program (SBRP),” National Institute of Environmental Health Sciences, Research Triangle Park, NC, October 18-21.</p>
2003	<p>NSF SBIR Panel - Part II Meeting, Arlington, VA, August 7.</p>
2002	<p>Panelist, National Science Foundation, SBIR/STTR Phase I, Arlington, VA, September 20</p>
	<p>Program Committee, American Chemical Society Colloid Division.</p>
	<p>Executive Committee, American Chemical Society Colloid Division.</p>
2001	<p>Panelist, National Science Foundation, Nanoscale Interdisciplinary Research Team, Arlington, VA, January 23</p>
	<p>Panelist, American Ceramic Society, “Industry-University-Government Joint Research for Future Global Industrial Growth”, Frontiers of Materials Research and Product Innovation, Indianapolis, Indiana, April 23</p>
	<p>Engineering Foundation Liaison, Froth Flotation Conference on Froth Flotation, May</p>
	<p>Planning Committee, National Academy of Engineering Regional Meeting, on Engineering for Humanity and the Environment, New York, New York, May 31</p>
	<p>Honored Guest, Welcoming reception and opening ceremony 2001</p>
	<p>International Symposium on Nanomaterials and Technology. Beijing, July 2</p>

	Board Member, National Science Foundation, Gainesville, Florida, September 4-6,
	Doctorate Adjudication Committee, Norwegian University of Science and Technology, September 21
	Committee, United Engineering Foundation Council 2001
	Panelist, University of Florida panel on Cross-disciplinary Particle Science & Technology, Gainesville, Fl, February 12
2000	Director, National Science Foundation I/UCRC for Advanced Studies in Novel Surfactants, 1997-1999.
1999	Co-Chair, Minerals Bioprocessing IV Stockholm
	Senior Chair, Biobenefication-I
	Chairman, Department of Chemical Engineering, Material Science and Mining Engineering, until 1997.
1997	Co-Chair, 9 th International Conference on Surface and Colloid Science, July
	Session Chair, Fundamentals-A, Engineering Foundation Conference on Development on Non-Renewable Resources: Challenge and Solutions, November
	Session Chair on Dynamics of Interfaces and Colloids, International Symposium on Sofia, Bulgaria, July
	Session Chair, Instrumental and On-Line Analysis, XX International Mineral Processing Congress, Aachen, Germany, September
	Session Chair, 9 th International Conference on Surface and Colloid Science, Sofia, Bulgaria, July
	Session Chair, XX International Mineral Processing Congress, Aachen, Germany, September
	Co-Chairman, XIX International Mineral Processing Conference Committee
1996	Session Chair, International Conference on Mineral Processing: Recent Advances in Future Trends, Kanpur, December
1995	Session Chair, 10 th Surfactants in Solution Symposium, International Advisory Committee, Caracas, Venezuela, June
1994	Co-Chairman, XIX International Mineral Processing Congress Program Committee, 1993-1994
	Session Chair, "Adsorption and Solubilization", American Chemical Society
	Session Chair, National Meeting, First International Particle Technology Forum
	Session Chairman, Symposium on Enhanced Oil Recovery, 205 th National ACS Meeting, Denver, April
1993	Session Chairman, Foundation Conference on "Emerging Separation Technologies for Metals and Fuels", Florida, March
	Session Chairman, International Mineral Processing Congress, Dresden, Germany
1991	Chairman, Department of Interior, USBM Research Council of the Generic Mineral Technology
	Center on Comminution
1990	Chairman, Organizing Committee, International Conference on Environmental

	Issues and Management of Waste in Energy and Minerals Production, New Jersey
	Chairman, 8 th International Symposium on Surfactants in Solution
	Session Chairman, Impact of Past and Current Practices on the Environment: Assessment of Practices and Problems, International Conference on Environmental Issues and Management of Waste in Energy and Minerals Production, New Jersey
	Session Chairman, Dispersion and Classification, 2 nd World Congress on Particle Technology, Kyoto, Japan
	Session Chairman, Surface Chemistry of Coal, Engineering Foundation Conference on Fine Coal Cleaning, Palm Coast, Florida
	Session Chairman, Innovations in Materials Processing Using Aqueous, Colloid and Surface Chemistry, 118 th Annual AIME/SME Meeting, Las Vegas
1989	Session Chairman, "Surface and Colloidal Phenomena in Fine Particles Processing-II", International Symposium on Advances in Fine Particle Processing, Boston
	Session Chairman, Engineering Foundation Conference on Advances in Coal and Mineral Processing Using Flotation, Palm Coast
	Hosted International Fine Particle Research Institute's 10 th Annual Meeting, Teaneck, New Jersey
	Chairman, VII International Processing Symposium Session, Istanbul, September
	Chairman, Session on Fine Particles and Dispersed Systems, 6 th International Conference on Surface and Colloid Science, Hakone, Japan
1988	Session Chairman, Flocculation I, International Symposium on Production and Processing of Fine Particles, Montreal, Canada
	Chairman, American Chemical Society, Symposium on Surfactants in Minerals and Materials Systems
	Senior Chairman, International Symposium on Surfactants in Solution, New Delhi, 1
1987	Co-Chairman, Advisory Committee, Indo-US Seminar on Special Topics in Mineral Processing, Pune, India, 1987-1989
	Session Chairman, Indo-US Seminar on Special Topics in Mineral Processing
	Session Chairman, Separation of Solids, Engineering Foundation 2 nd International Conference on Separation Technology, Schloss Elmau, West Germany
	Material Science Expert, National Science Foundation Workshop, "Strong Sub-fields of Indian Science and Technology: Advantageous Areas for U.S. collaboration, Arlington, Virginia
	Senior Chairman, Seminar on Chemistry and Applications of New Reagents for Mineral Benefication, Pune
1986	Doctoral Committee, Department of Chemistry, CUNY Brooklyn, 1986-1989
	Vice-Chairman, Program Committee, Society of Mining Engineers
	Chairman, Organizing Committee AIME, Arbiter Symposium on Advances in Mineral Processing, New Orleans
	Session Chairman, International Symposium on Flocculation in Biotechnology and Separation Systems, Fine Particle Society Symposium, San Francisco
	Chairman, Program Coordination Committee, SME, 1986.

	Honorable Consultant, Division of Finer Particle Technology of Chinese Technical Information, People's Republic of China, 1986
	Co-Supervisor, PhD., Flotation Committee, Central South University of Technology, Changsha, People's Republic of China, 1986.
	Co-Chairman, Engineering Foundation Conference on Science and Technology of Processing Fine Coal, Henniker, N. H.
1985	Co-Chairman, Engineering Foundation Conference, Flocculation and Sedimentation and Consolidation, Sea Islands, Georgia, January 27 - Feb. 1
	Session Chairman, Flocculation, ACS Colloid Symposium, Potsdam
	Chairman, Engineering Foundation Conference Committee, 1984-1995.
	Session Chairman, Sedimentation and Consolidation, Sea Islands, Georgia, January 27
	National Research Council Panel on Engineering Research Energy, Resources Environment, 1984-1988.
1984	Session Chairman, Reagents in Mineral Industry Conference, Rome
	Chairman, Subcommittee on Conference Format, Engineering Foundation
1983	Chairman, General Committee, Mineral Processing Div., Society of Mining Engineers/AIME, 1982-83
1982	Chairman, Mineral Processing Div., Soc. of Mining Engineers/AIME, 1982-83
	Chairman, Engineering Foundation Conference on "Minerals, Metal and Coal Extraction with Minimum Water Usage and Pollution," Santa Barbara, January
	Assoc. Chairman, Min. Proc. Div., Soc. of Mining Engineers/AIME, 1981-82
1981	Assoc. Chairman, General Committee, Min. Proc. Div., Soc. of Mining Engineers/AIME, 1981-82
	Chairman, Program Committee, Mineral Processing Div., Soc. of Mining Engineers/AIME, 1981-82
	Chairman, XIV Int. Mineral Processing Congress Organizing Committee for Flotation, 1981/82
	Vice-Chairman, Program Committee, Mineral Processing Div., Soc. of Min., Met. & Mineral Engineering, 1980-81
1980	1st Regional Vice-Chairman, Mineral Processing Div., Soc. of Mining Engineers/AIME
	2nd Regional Vice-Chairman, Mineral Processing Div., Soc. of Mining Engineers/AIME
1979	Co-Chairman, International Symposium on Resources Engineering and Technology, Bombay, January
	Chairman, International Symposium on Fine Particles Processing, Soc. of Mining Engineers 1978-1980
1978	Session Chairman, 107 th Annual AIME Meeting- Fundamentals General Session, (Mineral Processing Division), General Session, 1978.
	Chairman, National Science Foundation Workshop: "Beneficiation of Mineral Fines: Problems and Research Needs," Tuxedo, New York, August

	Chairman, Mineral Processing Fundamentals Committee, AIME
1977	Chairman Representative, Henry Krumb School of Mines
1976	Chairman, National Science Foundation Workshop: "Research Needs in Mineral Processing," Harriman, New York, August
1975	Chairman, NSF Workshop "Objective Research for our Mineral Requirements" Program Chairman, Flotation and Flocculation Chemistry, Society of Mining Engineers Session Chairman, Mineral Processing Fundamentals, Session I, AIME Co-Chairman, AIChE Symposium, "Application of Interfacial Phenomena in Flotation Research", Salt Lake City, August
1974	Chairman, Mineral Processing Fundamentals Session I, AIME Co-Chairman, Engineering Fundamentals, American Institute of Chemical Engineers Session Chairman, Mineral Processing Fundamentals, AIME Annual meeting, Dallas Vice-Chairman, Mineral Processing Fundamentals Committee, AIME, 1972-76
1972	Chairman, School of Engineering and Applied Science Research Committee, Columbia University.

Reviewer:

National Science Foundation proposals
 U.S. Bureau of Mines proposals
 Engineering Foundation proposals
 U.S. Environmental Protection Agency proposals
 American Chemical Society - Petroleum Research Fund proposals
 Journal of Physical Chemistry
 Journal of Colloid and Interface Science
 Powder Technology
 Colloid and Polymer Science
 International Journal of Mineral Processing
 Journal of American Oil Chemists' Society
 Journal of the Electrochemical Society
 Journal of the Society of Petroleum Engineers
 American Chemical Society - Advances in Chemistry Series Marcel Dekker
 John Wiley and Sons

Discussion Leader:

Symposium organizer: “Soft Colloids: Fundamental Research and technological applications,” 226th American Chemical Society Meeting, New York, September 7-11, 2003.

Moderator and organizer: Polymer Surfactants in emulsions and dispersions,” Society of Cosmetic Chemists Annual Scientific Seminar, Washington DC, May 8, 2003.

President/Organizer, 3 sessions on “Concentrated Colloidal Dispersion: Theory, Experiments and Applications, 223rd ACS National Meeting, Orlando, FL, April 7-8, 2002

"Research Opportunities," National Science Foundation Workshop on Beneficiation of Mineral Fines, Sterling Forest, NY, August, 1978

Session Chairman:

Chair, Personnel Committee to review the nomination of a candidate for appointment as Associate Professor, Columbia University, Fu Foundation School of Applied Science, New York, NY April 4, 2012

Chair, session at International Conference on Wireless Technologies for Humanitarian Relief (ACWR2011), Amrita University, Amritapuri, India, December 21, 2011

Chair, Unilever Award Committee at the 85th ACS Colloid & Surface Science Symposium, Montreal, Canada, June 19-22, 2011

Conference Honorary Chair, Beneficiation of Phosphate VI, Kunming, China, March 6-11, 2011

Chairman, “Separation techniques to meet oil spill challenges” (sessions I, II & III) at the 2011 SME Annual Meeting and Exhibit, Denver, CO, February 27 – March 2, 2011

Session Chair, Session 8-A – “Flotation VI” at the XXV International Mineral Processing Congress – IMPC 2010, Brisbane, Australia, September 7, 2010

Session Chair, Water Quality Management and Regional Water Quality and Quantity Planning – I, at the 3rd International Perspective on Current & Future State of Water Resources & the Environment, Chennai, India, January 6, 2010

Chairman, 13th International Conference on Colloid and Surface Science and 83rd ACS Colloid and Surface Science Symposium, New York, June 14-19, 2009

Chair, Hoover Award Ceremony at Columbia University, New York, to award Hoover medal to former Indian President Dr. A.P.J. Abdul Kalam-2009

Session Chair, at the 234th ACS National Meeting, Boston, MA, August 19 - 23, 2007

Chair, Plenary Lectures at the 12th International Conference on Surface and Colloid Science, Beijing, China, October 18, 2006

Chair, Surfactant Self-Assembly / Surfactants on Surfaces session of the 229th ACS National Meeting, San Diego, CA, March 17, 2005.

Chair, Surfactant Self-Assembly / Surfactants on Surfaces session of the 229th ACS National Meeting, San Diego, CA, March 17, 2005.

Chair, “Soft Colloids: Interacting Nanoparticles session,” 226th ACS National Meeting, New York, September 7, 2003.

Chair, Session of the 14th Surfactant in Solution Symposium, Barcelona, Spain, June 9 –14, 2002

Chair, Dhanan Publications Seminar, “Making Kerala Go Global”, Kerala, India, January 4-6, 2001

Chair, Engineering Foundation Conference on Froth Flotation and dissolved air flotation, Tahoe, City, May 21, 2001.

Honorary Chair, International Organizing Committee, 2001 International Symposium on Nano-Materials and Technology, Beijing, China, July 2 – 5, 2001

Chair, Engineering Foundation Nominating Committee, 1996-1999.

Chairman, Symposium on Recent Advances in Particle Science and Technology, April, 1998.

Session Chair, Conference on Novel Surfactants, Royal Society Chemistry Faraday Division, Wexham, UK, September, 1998.

Session Chair, Fundamentals-A, Engineering Foundation Conference on Development on Non-Renewable Resources: Challenge and Solutions, November, 1997.

Session Chair on Dynamics of Interfaces and Colloids, International Symposium on Sofia, Bulgaria, July, 1997.

Session Chair, Instrumental and On-Line Analysis, XX International Mineral Processing Congress, Aachen, Germany, September, 1997.

Session Chair, 9th International Conference on Surface and Colloid Science, Sofia, Bulgaria, July, 1997

Session Chair, XX International Mineral Processing Congress, Aachen, Germany, September, 1997.

Session Chair, International Conference on Mineral Processing: Recent Advances in Future Trends, Kanpur, December, 1995

Session Chair, 10th Surfactants in Solution Symposium, International Advisory Committee, Caracas, Venezuela, June, 1994

Session Chair, “Adsorption and Solubilization”, American Chemical Society, 1994

Session Chair, National Meeting, First International Particle Technology Forum, 1994

Session Chairman, Symposium on Enhanced Oil Recovery, 205th National ACS Meeting, Denver, April, 1993

Session Chairman, Foundation Conference on “Emerging Separation Technologies for Metals and Fuels”, Florida, March, 1993

Session Chairman, International Mineral Processing Congress, Dresden, Germany, 1991

Chairman, Peer Committee #11, National Academy of Engineering, 1989-1990.

Chairman, Department of Interior, USBM Research Council of the Generic Mineral Technology Center on Comminution, 1990

Chairman, Organizing Committee, International Conference on Environmental Issues and Management of Waste in Energy and Minerals Production, New Jersey, 1990

Chairman, 8th International Symposium on Surfactants in Solution, 1990

Session Chairman, Impact of Past and Current Practices on the Environment: Assessment of Practices and Problems, International Conference on Environmental Issues and Management of Waste in Energy and Minerals Production, New Jersey, 1990

Session Chairman, Dispersion and Classification, 2nd World Congress on Particle Technology, Kyoto, Japan, 1990

Session Chairman, Surface Chemistry of Coal, Engineering Foundation Conference on Fine Coal Cleaning, Palm Coast, Florida, 1990

Session Chairman, Innovations in Materials Processing Using Aqueous, Colloid and Surface Chemistry, 118th Annual AIME/SME Meeting, Las Vegas, 1989

Session Chairman, "Surface and Colloidal Phenomena in Fine Particles Processing- II", International Symposium on Advances in Fine Particle Processing, Boston, 1989

Session Chairman, Engineering Foundation Conference on Advances in Coal and Mineral Processing Using Flotation, Palm Coast, 1989

Chairman, VII International Processing Symposium Session, Istanbul, September, 1989

Chairman, Session on Fine Particles and Dispersed Systems, 6th International Conference on Surface and Colloid Science, Hakone, Japan, 1988

Session Chairman, Flocculation I, International Symposium on Production and Processing of Fine Particles, Montreal, Canada, 1988

Chairman, American Chemical Society, Symposium on Surfactants in Minerals and Materials Systems, 1988

Senior Chairman, International Symposium on Surfactants in Solution, New Delhi, 1987

Session Chairman, Indo-US Seminar on Special Topics in Mineral Processing, 1987

Session Chairman, Separation of Solids, Engineering Foundation 2nd International Conference on Separation Technology, Schloss Elmau, West Germany, 1987

Senior Chairman, Seminar on Chemistry and Applications of New Reagents for Mineral Beneficiation, Pune, 1986

Vice-Chairman, Program Committee, Society of Mining Engineers, 1986

Chairman, Organizing Committee AIME, Arbiter Symposium on Advances in Mineral Processing, New Orleans, 1986

Session Chairman, International Symposium on Flocculation in Biotechnology and Separation Systems, Fine Particle Society Symposium, San Francisco, 1986

Chairman, Program Coordination Committee, SME, 1986

Fine Coal, Henniker, N. H., 1985

Session Chairman, Flocculation, ACS Colloid Symposium, Potsdam, 1985

Chairman, Engineering Foundation Conference Committee, 1984-1995

Session Chairman, Sedimentation and Consolidation, Sea Islands, Georgia, January 27, 1985

National Research Council Panel on Engineering Research Energy, Resources Environment, 1984-1988

Session Chairman, Reagents in Mineral Industry Conference, Rome, 1984

Session Chairman, ACS Meeting, Washington, D.C. 1983.

XIV International Mineral Processing Congress, Flotation Sessions, Toronto, October 1982

111th Annual AIME Meeting, Dallas, February 1982

International. Conference on Surface and Colloid Science, Jerusalem, July 1981

Engineering Foundation Conference on "Interfacial Phenomena in Mineral Processing", August 1981

1st Regional Vice-Chairman, Mineral Processing Div., Soc. of Mining Engineers/AIME, 1980

Chairman, International Symposium on Fine Particles Processing, Soc. of Mining Engineers 1978-1980

2nd Regional Vice-Chairman, Mineral Processing Div., Soc. of Mining Engineers/AIME, 1979
Surface Chemistry of Coal Impurities, Engineering Foundation on Advances in Coal Processing Technology, Rindge, New Hampshire, August, 1979
Interfacial Aspects of Solid/Liquid Separation, 53rd Colloid and Surface Science Symposium, Rolla, Missouri, June 1979
Mineral Processing Fundamentals I, 108th AIME Meeting, New Orleans, February 1979
Keynote Session V, International Symposium on Resources Engineering and Technology, Bombay, January 1979
Chairman, National Science Foundation Workshop: "Beneficiation of Mineral Fines: Problems and Research Needs," Tuxedo, New York, August 1978
AIChE Annual Meeting, Flocculation and Sedimentation Session, Miami, November 1978
"Bauxite and Sulfur - Updating Processing and Handling," SME Fall Meeting, Lake Buena Vista, Florida, September 1978
Mineral Processing Fundamentals, General Session, 107th Annual AIME Meeting, Denver, February 1978
Chairman, Mineral Processing Fundamentals Committee, AIME, 1977
ACS Symposium on Recent Developments in Separation Technology - Interfacial Phenomena in Particles Separation, American Chemical Society Centennial Meeting, San Francisco, August 1976
Chairman, National Science Foundation Workshop: "Research Needs in Mineral Processing," Harriman, New York, August 1975
Chairman, NSF Workshop "Objective Research for our Mineral Requirements", 1975
Program Chairman, Flotation and Flocculation Chemistry, Society of Mining Engineers, 1975
Session Chairman, Mineral Processing Fundamentals, Session I, AIME, 1975
Chairman, Mineral Processing Fundamentals Session I, AIME, 1974
Chairman, Engineering Fundamentals, American Institute of Chemical Engineers, 1974
Vice-Chairman, Mineral Processing Fundamentals Committee, AIME, 1972-76
Chairman, School of Engineering and Applied Science Research Committee, Columbia University
Session Chairman, Mineral Processing Fundamentals I, Annual AIME Meeting, New York, February 1975
Mineral Processing Fundamentals I, 104th Annual AIME Meeting, New York, February 1975
Mineral Processing Fundamentals I, 102nd Annual AIME Meeting, Chicago, February 1973
Mineral Processing Fundamentals, I, 101st Annual AIME Meeting, San Francisco, February 1972

Session Co-Chairman:

Vice Chair, the 2009 Hoover Board of Award
Co-Chair, "Science and Technology issues in Methane Hydrate R&D" conference organized by the Engineering Conferences International, Kauai, Hawaii, March 5-9, 2006
Vice Chair, Asian Columbia Alumni Association, 2005.
Co-Chair: International Conference on Beneficiation of Phosphates.

Co-Chair, 33rd Mid Atlantic Industrial & Hazardous Waste Conference @Manhattan College, Riverdale, NY, "Phosphate waste slimes: problems, remedies & opportunities, Monday, June 18, 2001

Co-Chair, Engineering Foundation Conferences Beneficiation of Phosphates III, St. Pete Beach, Florida, December 2-7, 2001

Co-Chair, XX International Mineral Processing Congress, 1996-1999.

Co-Chair, Minerals Bioprocessing IV Stockholm, 1999.

Co-Chair, 9th International Conference on Surface and Colloid Science, July, 1997

Co-Chairman, XIX International Mineral Processing Conference Committee, 1996

Co-Chairman, XIX International Mineral Processing Congress Program Committee, 1993-1994

Co-Chairman, Advisory Committee, Indo-US Seminar on Special Topics in Mineral Processing, Pune, India, 1987-1989

Co-Chairman, Engineering Foundation Conference on Science and Technology of Processing Co-Supervisor, PhD., Flotation Committee, Central South University of Technology, Changsha, People's Republic of China, 1986

Co-Chairman, Engineering Foundation Conference, Flocculation and Sedimentation and Consolidation, Sea Islands, Georgia, January 27 - Feb. 1, 1985

Co-Chairman, International Symposium on Resources Engineering and Technology, Bombay, January, 1979

Opening Session, NSF Workshop on Beneficiation of Mineral Fines, Sterling Forest, NY August 1978

Co-Chairman, AIChE Symposium, "Application of Interfacial Phenomena in Flotation Current Fine Beneficiation Problems in Mineral Industries, NSF Workshop on Beneficiation of Mineral Fines, Sterling Forest, NY, August 1978

Invited Participant:

Moderator, "Opportunities in Nanotechnology and Biotechnology" conference session, Third Global Indian Entrepreneurs Conference, New York September 12 – 15, 2002

National Science Foundation Workshop in "Fundamental Problems of Tertiary Oil Recovery," Austin, June, 1974

Workshop on "Physicochemical Mechanisms of Dental Caries," National Institute of Dental Research, Warrenton, Virginia, June 1973

Consultant to:

Engelhard Corp. (1988), Aqualon (1988-present), IBM (1986), IMC (February 1982), UNESCO (1982), Exxon Mineral Co. (1981-82), Alcan (September 1981), Pennsylvania Glass Sand Co (1981), Colgate Palmolive (1979-Present), Union Carbide Corporation (April 1979), Proctor and Gamble Co. (12/8/78-12/1/79), American Cynamid (10/15/78-11/3/78), Exxon Enterprises, Inc. (1978-1979), National Science Foundation (1977-present), Exxon Research & Engineering (1977-1981), B.F. Goodrich Company (1977-1980), Occidental Research Corporation (November 1977), International Paper Company (1975), Illinois Institute of Technology Research Institute

(IITRI), Particle Fluid Separation Technology Program (18 companies participating) (1974-1977), Amoco Production Company (1974-1977, 1980), National Institutes of Health (June 1973), Research Institute for Advanced Studies, Martin Marietta Corporation (1973).

Editorships:

1. Editor: Encyclopedia of Surface and Colloid Science
2. Honorary Editor-in-Chief: Colloids and Surfaces
3. Editorial Board, the Journal of Chemistry and Environment.
4. Editorial Board, International Journal of Mineral Processing
5. Member, Editorial Board, the Journal of Chemistry and Environment, Indore, India.
6. Member, Editorial Board, The Journal of Ore Dressing, Izmir, Turkey
7. Member, Editorial Board, Journal: "Anais da Academia Brasileira de Ciencias" Brazil.
8. Member, Editorial Committee of Engineering Science in China, published by the Chinese Academy of Engineering.
9. Member, Editorial Board, The European Journal of Mineral Processing and Environmental Protection, ISSN 1303-0868. 2001.

Member:

Member, Editorial Board of the Journal Resources: Natural Resources and Management, 2012

Honorary Member of the Honorable Editorial Board of the International Journal of BioScience and Technology (IJBST) and its associated journals, India, 2012

Member, Board of Advisors Meeting of the Department of Chemical and Biomolecular Engineering, Tulane University, New Orleans, LA, November 18, 2011

Member, Advisory Committee, XII International Conference on Mineral Processing Technology, MPT-2011, Udaipur, India, October 20-22, 2011

Member, Canadian Center of Academic Arts and Science as of March 25, 2011

Member, Board of Advisors of the Tulane University Department of Chemical and Biomolecular Engineering, Tulane University, New Orleans LA, October 15, 2010

Member, International Advisory Committee, Program for Excellence for Nanotechnology, Translational Nanomedical Therapies for Cardiac & Vascular Diseases, Mount Sinai School of Medicine, New York

Member, International Advisory Committee, International Seminar on Mineral Processing Technology (MPT-2010) at Jamshedpur, India, December 15-17, 2010

Member, Advisory Body of MET's Engineering College, Mala, India, December 21, 2010

Appointed Honorary Adjunct Professor at Amrita University, Coimbatore, India

Member, Audit/Finance Committee, Engineering Conferences International, New York

Member, Scientific Advisory Board of Modular Genetics, Cambridge

Member, Internal Advisory Committee of NHLBI Programs of Excellence in Nanotechnology (Title of Program: Translational Nanomedical Therapies for Cardiac & Vascular Diseases), a joint program between Mount Sinai School of Medicine and Massachusetts Institute of Technology.

Member, Executive Committee, MPD Division at the SME Mid Year Meeting, Nashville, TN, September 26, 2009

Member, Board of Advisors, Department of Chemical and Biomolecular Engineering, Tulane University, New Orleans, LA

Member, Scientific Advisory Board of Modular Genetics, Cambridge, August 2009

Member, Colloid and Surface Science Symposium Committee Business Meeting, University of Delaware, Newark, DE, June 26, 2007

Member, Hoover Board of Award Meeting, New York N.Y., May 3, 2007

Member, International Advisory Committee, Conference on Metals and Alloys: Past, Present and Future (to honor Prof. Anantharaman on his 80th birthday), New Delhi, India, November 25 – 27, 2007

Member, International Advisory Committee for International Symposium on Recent Trends in Surface & Colloid Science, Kolkata, India, November 15-16, 2007

Member, International Advisory Committee for the International Seminar on Mineral Processing Technology (MPT 2007), Mumbai, India

Member, Advisory Board, 17th Surfactants in Solutions Conference, Berlin, Germany, August 18-22, 2008

Member, International Advisory Committee, Conference on Metals and Alloys: Past, Present and Future (to honor Prof. Anantharaman on his 80th birthday), New Delhi, India, November 25 – 27, 2007

Member, International Advisory Committee for International Symposium on Recent Trends in Surface & Colloid Science, Kolkata, India, November 15-16, 2007

Member, Advisory Board, 17th Surfactants in Solutions Conference, Berlin, Germany, August 18-22, 2008

Member, IMPC Council Meeting, Kunming, China, September 2 – 8 2007

Member, Board of Directors, Engineering Conferences International

Affiliate Member of the Conference Committee of the Engineering Conferences Foundation.

Member, Engineering Conferences International Finance/Budget Committee

Member, Selection Committee of “The Maison G. de Navarre Medal Award” of the Society of Cosmetic Chemists, March 31, 2006

Member, Scientific Committee, 3rd International Conference on Population Balance Modeling, Quebec City, Canada, September 19-21, 2007

Member, International IMPC Council for the 13th International Mineral Processing Congress, Istanbul, Turkey, September 3-8, 2006

Member, IMPC International Advisory Board for the 13th International Mineral Processing Congress, Istanbul, Turkey, September 3-8, 2006

Host to Dr. Noel Hechanova, Department Head of City Environment and Natural Resources Office, Iloilo City, The Philippines, in connection with Exchange visit from ASEAN City Partners. The guest was shown the Essex County WTE in New Jersey on June 28, 2006

Member, MPD Executive Committee of SME

Member, International Advisory Committee, SIS, Korea

Member, Hoover Medal Board of Awards, New York, April 14, 2005.

Member, Editorial Board Meeting – International Journal of Mineral Processing, Salt Palace Convention Center, Salt Lake City, February 28, 2005.

Member, Advisory Committee, International Conference on Mineral Processing (MPT – 2005), Dhanbad, India, January 6-8, 2005.

Member, Steering Committee, International Mineral Processing Congress.

Member, Committee on Scientific Affairs (COSA), Society of Cosmetic Chemists

Member, Chemical and Biomolecular Engineering Board of Advisors, Tulane University, New Orleans, LA

Member, SEAS Bioengineering Curriculum Committee

Member, Henry Krumb Chair Search Committee

Member, Engineering Conferences Foundation Board of Directors

Member, Examining Committee on the dissertation of Qing Song, titled, “Surfactant Transport from a Micellar Solution to a Clean Air/Water Interface: A Theoretical and Experimental Study,” The City College, New York, July 28, 2004

Member: International Advisory Board, International Mineral Processing Congress, Cape Town, South Africa.

Engineering Conference International: Board, Treasurer, Executive Committee.

Member: Committee on Scientific Affairs, Society of Cosmetic Chemists, Washington, DC

Advisory Board, Tulane University, Department of Chemical Engineering, American Chemical Society, Colloid Division Symposium Committee, New Orleans, April 9-10, 2003.

Panelist, National Science Foundation Research Equipment Panel Meeting, Arlington, VA, April 14, 2003.

Panelist, National Science Foundation, DMI – Small Business Phase I Meeting, Arlington, VA, March 13, 2003.

Committee member, Society of Cosmetic Chemists Annual Scientific Meeting and Technology Showcase, New York, December 5, 2002

Committee Member, Engineering Conferences Foundation, New York, NY, December 10, 2002

Member of Editorial Committee of Engineering Science in China, published by the Chinese Academy of Engineering.

Member, International Advisory Committee for the Conference on “The Iron Ore Industry: Today and Tomorrow”, Kiruna, Sweden, June 11 – 13, 2002

Member, Hoover Medal Board of Awards, New York

Advisory Board, Surfactant Science Series, Marcel & Dekker.

Member, Organizing Committee, Engineering Foundation Conference on Froth Flotation/Dissolved Air Flotation: Bridging the Gap, May 2001.

Nominating Committee, Engineering Foundation, 1996-1999.

Board Member, Engineering Foundation Committee, 1993-1999

Jury Member, Science for Art Prize, LVMH., 1989-1999

Congressional Environmental Advisory Committee (20th District), 1996-1999.

Engineering Foundation Projects Committee, 1995-present.

Organizing Committee, National Science Foundation, U.S. Egyptian Conference on Renewable Resources.

NSF Panel on Major Research Instrumentation, May 1999.

Participant, Army Nanocomposite Workshop, April 1999.
Participant, NSF site visit, University of Florida, February 1999.
Participant, NSF Annual I/U CRC Meeting, Washington D.C., January 1999.
Participant, NAE Regional Meeting, Murray Hill, April 1999.
National Science Foundation Panel on Technology for a Sustainable Environment 1999.
Organizer 3rd International Conference on Gas Hydrates, Chicago, 1999.
WANG Seminar, Changsha, 1999.
International Scientific Advisory Committee, Surfactants in Solutions, Stockholm, 1998.
Member, Columbia Asia Alumni Association Board, 1999.
Member, Columbia Earth Institute Committee, 1999.
Member, Columbia Earth Institute Academic Committee, 1999.
Director, Langmuir Center for Colloids and Interfaces, 1999.
Member, SEAS Applied Chemistry Committee, 1999.
Member, HKSM Chair Search Committee, 1999.
Member, Engineering Foundation Projects Committee 1995- present..
Member, United Engineering Foundation Board/Council, 1999.
Member, US Congressional Environmental Advisory Committee (20th District), 1996-1999.
Engineering Foundation Board, EF Projects Committee, EF Aplan Award Committee, 1989-1999.
Jury, LVMH Science for Art Prize, 1989-1999.
NAE Membership Policy Committee, 1996-1999.
XI SISS International Advisory Committee, 1996-1999..
NSF ERC for Particle Technology, 1996-1999.
Participant: NAE Frontiers of Engineering Conference; Bioadhesion Symposium, 1996-1999.
National Academy of Engineering Membership Task Group, 1998.
Advisory Board, J. Colloids and Interface Science, Surfactant Science Series, 1998.
Co-PI NSF/ERC for Particle Technology, 1998.
Alternate Member, Hoover Medal Board, 1998-present.
Panelist, Columbia Earth Institute Planning Workshop on Living with Finite Natural Resources, May, 1998.
Member, National Science Foundation Panels on University State Cooperative Research Center, 1992-1994.
NSF Career Awards Panel, 1997.
Council for Chemical Research, 1996- 1997.
Participant, NSF/IAB Meeting on Particle Science and Technology, Gainesville, Florida, August, 1998.
Member, New York State Center for advanced Technology, March, 1998.
Member, 28th Annual Meeting of the Fine Particle Society, Program Committee, 1998.
National Academy of Engineering Membership Policy Committee, 1994-1998.
SME Gaudin Award Committee, 1993-1997.
Life-Member, Engineering Foundation, Aplan Award Committee
9th International Conference on Surface and Colloid Science, International Advisory Committee, Sofia, Bulgaria, 1996-1997.
Participant, Council for Chemical Research, 1996-1997.

Advisory Committee, Department of Chemical Engineering, Tulane University, 1994-1999.
 NSF Engineering Research Center for Particle Technology, University of Florida, Gainesville.
 NIST Ceramic Processing Characterization Consortium.
 XX International Mineral Processing Congress September, Aachen, Germany, 1997.
 Session, 9th International Conference on Surface and Colloid Science, July, 1997.
 Session for Preparation, NSF, U.S.-Egypt Workshop for Preparation and Applications of Ultrafine Particles, Cairo, Egypt, November, 1997.
 U.S. Representative, IMPC Steering Committee, 1997.
 Master of Ceremonies, Golden Jubilee Celebrations Alumni Dinner, Bangalore, India, July, 1997.
 National Academy of Engineering Membership Task Group Meeting, 1997-1999.
 International Mineral Processing Steering Committee, University of Florida, 1997-present.
 Chemical Engineering Advisory Committee, 1994-1999.
 Soc. of Mining Engineers, Gaudin Award Committee, 1993-1999.
 Editor-in-Chief, Colloids and Surfaces, 1990-1991.
 Member, Organizing Committee, Symposium on Challenges in Mineral Processing, Honoring Douglas W. Fuerstenau on his 60th Birthday, Berkeley, California, 1988.
 Member, Advisory Committee, 7th International Symposium on Surfactants in Solution, Ottawa, Canada, 1988.
 Keynote lecture, Seminar on Environmental Aspects of Geology, Trivandrum, 1984.
 Associate Editor, "Minerals and Metallurgical Processing," 1983-Present
 Advisory Council, University of Utah, Comminution Center, 1983.
 Editor-in-Chief, "Colloids and Surfaces A", International Journal, Elsevier, 1979 - 2001
 Principal Reviewer, SME Transaction, 1979-1989.
 Secretary-Treasurer, Mineral Processing Division, Society of Mining Engineers/AIME, 1978
 Associate Editor, "International Journal of Mineral Processing," 1976-Present
 Associate Editor, "Journal of the Electrochemical Society of India," 1977-1983
 Member, National Science Foundation Panel on Career Awards, January, 1996.
 Participant, National Academy of Engineering "Frontiers of Engineering" conference, EF participant, 1996.
 Participant, Bioadhesion Symposium, February, 1996.
 Member, National Science Foundation Panels on University State Cooperative Research Center, 1995.
 Member, National Science Foundation Panel on Small Business Innovative Research Program, 1995.
 Member, National Academy of Engineering Membership Committee, 1990-1994.
 Member, 10th Surfactants in Solution Symposium, Caracas, Venezuela, June, 1994.
 Member, National Science Foundation engineering research center site visit panel, 1994.
 Member, National Academy of Engineering, "Frontiers of Engineering" Conference Committee, 1994.
 Member, Council for Chemical Research, 1994.
 Member, University of California School of Engineering and Applied Science Advisory Committee for Mineral Engineering and Materials Science, 1991-1993.

Member, National Science Foundation Panel on Small Business Innovative Research Program, 1992-1993.

University Day, Hoechst-Celanese Company, Summit, New Jersey, 1990.

Advisory Council, U.S. Bureau of Mines, Comminution Generic Center, 1984-present

National Academy of Engineering Membership Policy Committee, 1994-1998.

Member, International Advisory Committee, 8th International Symposium on Surfactants in Solution, Florida, 1990.

Member, NSF Site Panel, Engineering Research Center, University of Minnesota, 1990.

Member, External Review Panel, Mineral Engineering Department, University of California at Berkeley, 1989.

Panel Member, Du Pont Workshop, 1989.

Member, National Academy of Engineering Nominating Committee, 1989.

Member, National Science Foundation Engineering Research Center Site-visit Panel, 1988-1989.

Member, National Academy of Engineering Peer Committee, 1988.

Member, Department of Energy University Coal Research, Peer Review Committee, 1988.

Member, Innotech Scientific Panel on Surface Modification of Minerals, 1988.

Member, Organizing Committee, Symposium on Innovations in Materials Processing using Aqueous, Surface and Colloid Chemistry, TMS/SME, 1988.

Member, Society of Mining Engineering National Science Foundation Committee on Mineral Research, 1988.

Member, Organizing Committee, Engineering Foundation Second International Conference on Separation Technology, Schloss Elmau, West Germany, 1987.

Panel Member, Department of Energy Workshop on Surface Properties of Coal and Coal Minerals, Pittsburgh, 1987.

Participant, ARO Workshop on Approaches to Modeling of Friction and Wear, Columbia University, 1986.

Member, International Advisory Committee, International Symposium on Surfactants in Solution, 1986.

Member, Organizing Committee, International Symposium on Flocculation in Beneficiation and Separation Systems, Fine Particle Society, 1986.

Member, Steering Committee, 2nd International Symposium on Beneficiation and Agglomeration, Bhubaneswar, 1986.

Member, U.S. Dept. of Interior USBM Comminution Research Advisory Council, 1986-1989..

Gaudin Award Committee, Society of Mining Engineers, 1984-1985.

Member, Presidential Investigator Panel, National Science Foundation 1985.

Nominating Committee, Mineral Processing Division, Soc. of Mining Engineers/AIME, 1984

General Committee, Mineral Processing Division, Soc. of Mining Engineers/AIME, 1984

Educational Issues Committee, Soc. of Mining Engineers/AIME, 1984-1989.

Executive Committee of the board of directors, SME of AIME, 1984.

Engineering Foundation Conference Committee, 1982-1989.

National Science Foundation Advisory Committee on Chemical and Process Engineering Division, 1981-1982

Member, Reagan-Gandhi STI Indo-U.S. Cooperation Research Panel, 1985.

Board of Directors, Society of Mining Engineers, 1982-1985
 Peer Review Panel, Surface Mining Control and Reclamation Act, U.S. Department of the Interior.
 Nominating Committee, Society of Mining Engineers, 1980-1985
 American Chemical Society, Division of Colloid and Surface Chemistry Ad-Hoc Committee on New Journal in Colloid and Surface Chemistry, 1979
 New York Academy of Sciences, 1982-present
 Applied Chemistry Committee, Columbia University.
 Mining Engineering Committee, Society of Mining Engineers, 1979, 1980
 National Academy of Sciences' Committee on Accessory Elements - Phosphates, 1976-78
 General Committee, Mineral Processing Division, Society of Mining Engineers, 1978, 1979, 1980, 1983
 National Science Foundation Research Initiation Proposal Review Panel-Chemical and Process Engineering, 1982
 U.S. Delegation to Workshop on Mineral Processing and Metallurgy, Udaipur, December 1981
 Society of Mining Engineers Workshop Party #68, 1982-83
 Society of Mining Engineers Education Planning Committee, 1982-1985
 Society of Mining Engineers Mineral Processing Division Nomination Committee, 1980
 Book Publishing Committee, Society of Mining Engineers, 1982-1989.
 U.S. Delegation to International Symposium on Fine Particulate Science and Technology, Madras, December 1982
 Program Co-ordination Committee, Society of Mining Engineers, 1981-82
 Executive Committee, Mineral Processing Division, Society of Mining Engineers, 1978
 Oversight Committee for the University of Florida's National Science Foundation Project at the Center for Research in Mining and Mineral Resources, 1977
 Member, Committee of Instructions, School of Engineering and Applied Sciences, 1974-1975.
 Interfacial Phenomena Committee (Area 1C), AIChE, 1975-present
 Member, Interfacial Committee of American Institute of Chemical Engineers, 1975.
 Publications Committee of Trans. AIME, 1973, 1975, 1976, 1977
 Review Committee for Transactions of AIME, 1969-1971
 American Institute of Chemical Engineers, 1974-present
 American Institute of Mining Metallurgical and Petroleum Engineers
 Indian Electrochemical Society
 Indian Institute of Metals
 Sigma Xi
 Board of Directors of Volunteers in Service to Education in India, 1974-present
 President: Keralasamajam of Greater New York, 1974-1975
 Aided UNESCO Program in developing Applied Chemistry program at Universidade Estadual De Campinas, Brazil, May 1982

Research, Teaching, and Administrative Experience:

Research experience in mineral processing and related colloid and interface science, flotation, fluid dynamics, enhanced oil recovery using micellar flooding, coal flotation, settling of suspensions, electrokinetics, surfactant adsorption, flocculation, and comminution.

Experience in teaching courses in applied chemistry and mineral processing programs at Columbia University and assisted in teaching civil engineering and mineral engineering courses at the University of California at Berkeley.

Short course on flocculation	US Bureau of Mines and University of Alabama.
Chairman Henry Krumb School of Mines,	1988-1997
Director Langmuir Center for Colloids & Interfaces,	1987-present.
Columbia-Exxon Educational Program, Surface Chemistry course formulation,	Linden, NJ, July 15, 1983, Clinton, NJ, December 6, 1983.
School of Mines Krumb Chair Search Committee,	1980
School of Engineering and Applied Science Research Committee (Chairman),	1979-present
School of Engineering Undergraduate Engineering Program (CUEP) Committee,	1979-81
Bioengineering Institute,	1976-present
Processing of Mineral Fines-Flocculation,	1975-present
Project Director for Enhanced Oil Recovery Program,	1975-present
The Committee on Instruction,	1975-79
Executive Committee of the School of Mines,	1975-76
Publicity Committee of the School of Mines,	1974-present
Engineering Freshman and Sophomore Advisor,	1974-76, 1979-81
School of Mines Scholarship and Fellowship Committee,	1971-75 (chairman of the committee, 1974-75)
School of Engineering and Applied Science/Applied Chemistry Committee,	1971-present
Mineral Engineering Undergraduate and Graduate Student Advisor,	1970-present.

Scientific Publications, Invited Papers, Lectures and Other Presentations At Meetings of Professional Societies:

Over 700 publications including 21 books, 115 invited lectures in various national and international symposia, universities and industries in 10 countries. Additional 200 lectures presented at meetings of professional societies.

Fields of Interest:

Mineral processing, colloid and interface science, flotation, enhanced oil recovery, coal flotation, settling of suspensions, electrokinetics, surfactant adsorption, flocculation.

Current Post-Docs:

Doctoral Students:

Acar, S., 10101 E. Dry Creek Rd., Singlewood, CO 80112.

Aliaga, W., Universidad de Chile, DPTO Ing. de Minas, Beaucheff, Casilla 2777, Santiago, Chile.

Amankonah, J. O., P. O. Box 84, Berekum, B/A, Ghana.

Ananthapadmanabhan, K. P., Unilever Research

Anderson, J. D., Chevron Oil Field Research Co., PO Box 446, La Habra, CA 90631.

Arias, J., 75 Perry Street, Apt 4A, New York, NY 10014-3244.

Atli, A., 3589 Sokak #6/2, Izmir, Turkey.

Bell, R., 85 Ward Avenue, Mandeville, Jamaica.

Chandar, P., 24 Smith Court, Closter NJ 07624-1629.

Chen, T., 500 West 120th Street, Apt. #910, New York, NY 10027-6623.

Chin, J., Airco Industrial Gases, 575 Mountain Avenue, Murray Hill, NJ 07974.

Das, K., A4/23 Tridalnagar, P. O. Box Yerwada, Pune 411006, India.

Dodson, P.,

El-Mofty, S., Cairo University, Petroleum & Mining Department, Faculty of Engineering, Orma, Giza, EGYPT.

Fan, A., 44 Reinhart Way, Bridgewater, NJ 08807.

Fu, E., 43 Chilhowie Drive, Kinnelon NJ 07405-3201

Huang, L., 404 Frank East Rodgers Boulevard No., Apartment 1, Harrison NJ 07029-6010

Kiefer, J., 2 High Rock Drive, Belvidere NJ 07823-2511

Koksal, E., Mavisehir, Selcuk 6, Giris 32, Daire 8, 35540 Bostanli Izmir, 35540 Turkey

Kumar, C.,

Kuzugudenli, O. E., Sivas Caddesi, Uzay Sites, (Erciyes University Fen-ED. Fak. Kimya Bolumu Kayseri TURKEY), A-Blok No. 6, Kayseri, Turkey.

Lartiges, B., ENSG - CNRS, Rue Du Doyen M. Roubault, 54501 VanDoeure, Cedex, France.

Li, C., 50 Carriage Road, Roslyn NY 11576-3123.

Liu, D., 132 Upshire Circle, Gaithersburg MD 20878-5214.

Lou, A., 100 LaSalle Street, Apartment 2G, New York, NY 10027.

Malbrel, C., 3, Rue des Gaudines, BP 253, 78104 Saint Germain En Laye, France.

Maltesh, C., 64 Main Road, Bangalore India 560066, India.

Mbowa, A.

Middleton, L. J., 380 Dogwood Lane, Manhasset NY 11030-2040

Morgan, L. J., 66 Orchard Road, Chatham NJ 07928-2032

Nagaraj, D.R., 1937 West main st, Stamford, Ct 06904.

Qiu, Q., Unilever Research

Rajagopalan, R., A Subsidiary of The Dow Chemical, 39 Old Ridgebury Road , Danbury, Connecticut 06817-0001.

Ramachandaran, R., 8 Park Lane, Flemington NJ 08822-3317.

Ramesh, R., 1710 Goodridge Drive, Mail Stop 2-2-1, Mclean, VA 22102.

Sarkar, D., Halliburton

Siracusa, P., 13 Orchard Hill Vista, Florida NY 10921-1029.

Sivakumar, R. A,

Sivakumar, A, 9/24 - A Sudarshan, Pestom Sagar 4th Road, Tilak Nagar P.O., Mumbai 400089, India.

Snell, E., 8304 Reagan Drive, Pittsburgh PA 15237-4493.

Subramanyan, K., 1375 River Road, Apartment 2L, Edgewater NJ 07020-1427.

Tjipangandjara, K., P. O. Box 31644, Pioneerspark, Windhoek, Khomas Region, Namibia.

Venkat, R., 54 B Hadapsar Industrial Estate, Pune 411 013, India.

Wei, Z. Akzo-Nobel

Wines, T., Pall Corp., 25 Harbor Park Drive, Port Washington, NY 11050

Wong, K., Rhone-Poulenc 52, rue De La Haine COQ, F-93308 Aubervilliers Cedex,
Physical Chemistry of Dispersed Media.

Xiao, L., P. O. Box 49, Changsha Hun China.

Xu, Q., 415 West 118th Street, Apartment #31, New York NY 10027-7222.

Yu, X., 456 Oregon Street, Paramus NJ 07652-5624.

Zhang, Lei, Akzo-Nobel

Zhang, Rui, 6612 Tackawanna Street, Philadelphia, PA 19135

Invited Talks

Name of conference	Title of talk	Conference address
3 rd Pravasi Bharatiya Divas Conference	Propelling India to the Forefront of Science and Technology	Mumbai, India
2005 SME Annual Meeting & Exhibit	Adsorption and Conformation of Polysaccharide Depressants on Minerals	Salt Lake City, Utah
Rohm and Haas	Surfactant/Polymer Interactions on Oxide Solids	Newark, DE
Cosmetic and Toiletries magazine's 2005 Advanced Technology Conference	Surfactant Systems and Nanogels for Cleansing and Deposition of Sensory Attributes	Berlin, Germany

Procter and Gamble Company	Polymer / Surfactant / Protein Interactions and Nanostructures: Current Development for Cleansing, Surface Modification, Release and Deposition of Actives	Cincinnati, OH
Beijing General Institute of Mining and Metallurgy	Probing of Nanostructures in solutions and Interfaces: Techniques and Mechanisms for Applications in Interfacial and Colloidal Processes: Enhanced Oil Recovery, Flotation, Dispersion / Flocculation, Nanoparticles	Beijing, China
	Interaction between Surfactants, Polymers, Hybrids, Proteins, Nanoparticles	Shandong University, China
	Mechanisms of Applications of Surfactants in Interfacial and Colloidal Processes: Enhanced Oil Recovery, flotation, Dispersion / Flocculation, Nanoparticles etc	Garden Hotel of GuangZhou, China
Centenary of Flotation Symposium	Role of Water Chemistry in Flotation	Brisbane, Australia
AIChE Annual Meeting	Transport at Interfaces	Cincinnati, OH
Colgate-Palmolive's Technology Advisory Committee's Mini-Symposium on Nanotechnology	Nanotechnology: Current developments / opportunities for cleaning and release of actives	Piscataway, NJ
9 th International Mining, Petroleum and Metallurgical engineering Conference		Cairo, Egypt
Seminar at Kimberly-Clark	Polymer/surfactant interactions and nanostructures: Developments in Cleaning, Release and Deposition of Actives	Roswell, GA
ACAA Committee Meeting	Science and Technology in Modern Asia: Can Asia catch up with the West?	Columbia University
invited lecture at the 8 th International Symposium on Reservoir Wettability	Environmentally Benign Surfactants/Inorganics/Minerals Interactions for Adsorption and Wettability Control in EOR	Rice University, Houston, TX

keynote opening lecturer at the First International TRI/Princeton Conference on Applied Hair Science	Polymer/surfactant interactions and nanostructures: Current development for cleansing and release and deposition of actives	Princeton, New Jersey
	Research needs for phosphate beneficiation: Interactions among minerals and reagent schemes for flotation selectivity	Florida Institute of Phosphate Research, Bartow, Florida
Invited Talk at the IAB		Engineering Research Center, University of Florida
2 nd International Aegean Physical Chemistry Days	Spectroscopic insight into surfactant-polymer interactions in solution and at solid liquid interfaces	Ayvalik / Balikesir, Turkey
Plenary lecture at the Xth. International Mineral Processing Symposium	Utilization of Bioreagents in Mineral Processing	Cesme, Turkey
Invited seminar at CIBA specialty Chemicals	Role of Interactions between Polymers, Surfactants and Proteins in Modifying Surfaces	Tarrytown, New York
Invited seminar at the University of Oklahoma, School of Chemical Engineering and Material Science	Surfactant/Polymer Interactions with Solids: Nanostructure of Adsorbed Layers and its Role in Wettability, Dispersion, Flotation, Deposition and Solubilization	
invited talk at the Benefication of Phosphate VI conference	Mechanisms Involved in Reactive Flotation of Dolomite	Miami, FL
225 th ACS National Meeting	Effect of polydispersity on adsorption of poly(vinyl caprolactam)s and correlation with their phase behavior	New Orleans, LA
225 th ACS National Meeting	Study of mixed surfactant micelles, using analytical ultracentrifuge	New Orleans, LA
Distinguished Speaker in Metal Science and Engineering	In-Situ Spectroscopic Investigation of Polymer/Surfactant/Protein Conformation Dynamics on Solids and in Solutions: Fluorescence, Surface Plasmon Resonance and ESR Studies	Penn State University, University Park, PA
Clean Coal and Power Conference	Environmentally benign surfactants for efficient enhanced oil recovery	Washington, DC

11 th National Conference on Surfactants, Emulsions & Biocolloids	Study of interactions between surfactants and liposomes /proteins using analytical ultra centrifuge and spectroscopic techniques	Institute of Chemical Technology, Mumbai
	Fundamental and technology of concentrated dispersions	Cytec, Stamford, CT
	Physiochemical mechanisms of flotation	Cytec, Stamford, CT
	In-situ spectroscopic investigation of surfactant and polymer conformation at solid-liquid interfaces: ESR, SPR and Fluorescence studies	Cytec, Stamford, CT
225 th ACS National Meeting	Dynamics of adsorption of polymers with different loop size and their unfolding with surfactants studied using surface plasmon resonance spectroscopy	New Orleans, LA
International Seminar on Mineral Processing Technology	Interactions of gum depressants with talc: study of adsorption by spectroscopic and allied techniques	Bangalore, India
14 th Surfactant in Solution Symposium	Disintegration of Liposome by Surfactants: Mechanisms of Protein and Cholesterol Effects	Barcelona, Spain
Workshop on Advanced Materials Characterization and Metal Manufacturing Techniques	Characterization of Adsorbed Surfactant and Polymer Layer and Their Application for Engineered Nanomaterials	Cairo, Egypt
224 th American Chemical Society National Meeting	Turning Fundamentals into Useful Information for both Commercial and Academic Interests: A Professionally Facilitated, Interactive Forum	Boston Massachusetts
NSF 8 th year site visit review / IAB Meeting	Modified Polyacrylamide Microgels for Overdose Drug Removal	NSF 8 th year site visit review / IAB Meeting
	Application of Surfactant/Polymer interactions With Solids in Deposition, Biosurfaces & Flocculation	Unilever, Bangalore, India
	Taking Kerala to the Forefront of Science and Technology	ERNAKULAM
Columbia University, Engineering weeks	Interfacial and Colloid Chemistry applications for the benefit of mankind	

Particles 2001 Conference	Flocculation by low molecular weight 'dispersants' under ultra low dosage concentrations	Orlando, Florida
Looking back and looking forward: 75 th Anniversary of Colloid Division Symposium	Simple Colloids in Simple Environments Conquered in the Past; Complex Real Life Nanoids to be Conquered in the Future	American Chemical Society Meeting, San Diego, California
103 rd American Ceramic Society Annual Meeting	Industry – University - Government joint Research for Future Global Industrial Growth	Indianapolis
	Interfacial Interactions between Surfactants & Polymers in Aqueous and Non-Aqueous Media	Ciba Specialty Chemical Water Treatments, Inc., Old Bridge, NJ
	Interaction of Surfactant & Polymer at solid/liquid Interface and the Flocculation	Sun Chemical, Carlstadt, NJ
	Novel Surfactants	PINY (Columbia Tie) Polytechnic Univ. of NY
2001 International Symposium on Nano-Materials and Technology	Novel Nanotechnology: Core-Shell nanocomposites Particles and Nanogels by Controlled Polymer Surfactant Adsorption	Beijing, China
	Nanocomposites and Flotation	Xian Institute, China
	Nanotechnology	Wuhan Institute of Chemical Technology
Second Annual Colloquium on Depressant Research	Spectroscopic Techniques for Polysaccharide Adsorption on Talc	University of Cape town, South Africa
National Science Foundation ERC Meeting	Design of Structures, Conformation and Dynamics of Reagent and their Mixtures for Dispersion/Flocculation	Gainesville
National Science Foundation Workshop on Use of Surfactants for Improved Petroleum Recovery	Adsorption of Surfactant Mixtures in IOR: Elucidation of Mechanisms for Minimum Loss	Houston, Texas
	Polymer/Surfactant Interactions with Solids	Stevens Institute of Technology, New York
United Engineering Foundation Conference on Beneficiation of phosphates		St. Peter Beach, Florida

Supplementary funds, NSF/ IURC Directors Annual Meeting		Arlington
	Flotation and Flocculation	Lulea Tekniska University
	Surfactant and Polymer Adsorption	Lulea Tekniska University
	Bioprocessing and Biomaterials	Lulea Tekniska University
	Deposition and Nanocomposites	Lulea Tekniska University
Koffernes I Mineralteknik	Surfactant/Polymer interactions with Solids: Applications in Flocculation, Dispersion Flotation Coatings, Nanocomposites and Biomaterials	Lulea
	Polymer/ Surfactant interactions	Institute for Surface Chemistry, Stockholm
education and advance training workshop	Real Particles and Real Effects: Importance in teaching for meeting future engineering challenges in Cross-Disciplinary particle Science and Technology	UEF, Gainesville
	Particulate dispersion in aqueous and non-aqueous solvents	Sulzer. Metco, Wetury, NY
American Chemical Society 2000 Meeting "Colloid and Surface Chemistry in the services of the 21 st century society	Schemes for next generation materials using controllable leathers	San Francisco
Guest lecture, Colloids and Surfaces, City College of the City University of New York	Flotation	New York, NY
SiS-2000	Plenary Lecture: Role of Conformation and Orientation of Surfactants and Polymers at Interface in Colloidal Processes	
Petroleum Technology Review	Optimization of Surfactant mixtures and their interfacial behavior for advanced oil recovery	Department of Energy, Denver
	Polymer and Hydrophobically Modified Polymers	Hercules Research Center, Washington

	Role of conformation of surfactants and polymers in controlling interfacial process	Department of Chemical Engineering, Chemistry and Material Sciences, Brooklyn Polytechnic University,
73 rd ACS colloid & Surface Science Symposium	Adsorption of human plasma fibronectin on modified titanium dioxide	MIT, Cambridge, MA
AI-SCP 99 Symposium	In situ spectroscopic investigation of surfactants and polymer in solution and at solid-liquid interfaces	Beijing, China
AIChE's 1998 Annual Meeting	Molecular Interactions of N-alkyl-2-pyrrolidones at the Air/water Interface: Anomalous increase in Attraction with Temperature increase	Miami Beach, Florida
Minerals Bioprocessing IV	Mechanism of adhesion of paenibacillus polymyxa onto hematite corundum and quartz	Stockholm, Sweden
National Science Foundation Annual I/UCRC Meeting		Virginia
SME Annual Meeting	Behavior of Surfactants at Solid-liquid Interface during Adsorption/Desorption Process	Salt Lake City
SME Annual Meeting	A study of Dual Polymer Flocculation	
	Nano Composites: Nano for Solids Ballistic Protection	U.S. Army Natick Soldier Center, Natick
IFRI Meeting	Nano Composites	Newadth
219 th ACS National Meeting	Characterization of Adenovirus Surfaces and their modification with lipid molecules: treating viruses as colloid particles	San Francisco, CA
National Colloids and Surfaces	Core-shell Nanocomposites by Controlled Polymer Adsorption	
National Colloid Symposium	Acoustic Spectroscopy for Characterizing Heptane/H ₂ O/AOT Reverse Micromulsions	Bethlehem
	Stirred Media Milling	Merck and Co, West Point
Mineral Bioprocessing	Mechanism of Adhesion of Paenibacillus Polymyxa onto hematite, corundum and quartz	Stockholm

National Science Foundation ERC.IAB meeting	A novel Scheme for Particle Deposition under Hostile Conditions: Role of a Conformation of Hairs	University of Florida, ERC?SAB Meeting, Gainesville
Engineering Foundation Conference Minerals Bioprocessing		Stockholm
	In Situ Spectroscopic Investigation of Surfactants and Polymers in Solution and Solid- liquid Interface	BEITINU
Wang 50 Anniversary working at Mineral Processing	Selective Flocculation Fines	Changilla
	Design of Reagents and their Conformation for Dispositions, Coatings, nanocomposites, Biomaterial and gene transfection	University of California, Berkeley
MINERACTEKNIK	Plenary lecture Surfactant/polymer Interaction/Dispersions/Flocculations/ Flotations, Coatings, nanocomposites and Biomaterials	
Army workshop	Novel Nanocomposites Processing	Natick, MA
Symposium on Colloid and Surface Chemistry	Role of Sequential Adsorption of Polymer/Surfactant Mixtures and Their Conformation in Dispersion/Flocculation	Melbourne Australia
Engineering Foundation Conference on Beneficiation of Phosphates III	Processing Carbonaceous Phosphates	Palm Coast, FL
AIChE's 1998 Annual Meeting	Molecular Interactions of N-Aalky-2-pyrrolidones at the Air/Water Interface: Anomalous Increase in Attraction with Temperature Increase	Miami Beach, FL
Fine, Ultrafine and Nanopowders '98	Core shell Nanocomposite Particles: Engineering Building Blocks for New Nanomaterials	New York, NY
	Surfactants: Characterization and Application for Desposition, Dispersion, Wettability, etc	Rhoda Corporation, Cranbury, NJ
Conference on Novel Surfactants, Faraday Division of Royal soc. Chemistry	Interfacial Properties of Sugar-Based Surfactants: Adsorption, Surface Tension and Micellization	Wareham, UK

Silica '98	Adsorption of Surfactants and Polymers on Silica	Mulhouse, France
Innovations in Materials Conference	A Novel Processing Scheme for Core-Shell Nanocomposites Using Controlled Polymer Adsorption	Washington, D.C.
Second Annual Mitsubishi Workshop on Fundamental Research in Particle Science and Technology	Surfactant Chemistry	Vancouver, Canada
72 nd ACS Colloid & Surface Science Symposium	Adsorption and Aggregation of Surfactant mixtures at the Solid-liquid Interface: Relationship Between Solloidal and Monomers	State College, PA
72 nd ACS Colloid & Surface Science Symposium	Removal of Hydrophobic Contaminants from Soil by Flotation	State College, PA
Advances in Process Measurements for the Ceramics Industry Symposium at the 100 th Annual Meeting and Exposition of the American Ceramic Society	Monitoring of the Conformation Dispersed Molecules for Enhanced Stability and Rheology of Suspensions	
	Flocculation, Dispersion and Deposition of Particles by Controlled Polymer Conformation	Dallas TX
SME Annual Meeting	Flocculation of Hydrophobic Contaminants for Soil	Orlando, FL
Science Advisory Board Meeting NSF/ERC	Concentrated Dispersions	University of Florida
SME Annual Meeting	Thermodynamics of Adsorption of Surfactants at Solid-Liquid Interface	Denver
SME Annual Meeting	Ultra-low Dosage Flocculation of Alumina Using Polyacrylic acid	Denver
SME Annual Meeting	Powder Surface and Polymer structural changes in ultrafine grinding in stirred mills	Denver
SME Annual Meeting	Adsorption of Polyacrylic Acid on Alumina and Silicon carbide	Denver
213 th ACS National Meeting	Theoretical model and phases behavior for binary surfactant mixtures	San Francisco
Recent Advances in Metallurgical Processes	Applications of Biological Processes in Metallurgy	India

9 th International Conference on Surface and Colloid Science	Keynote presentation on “Role of Conformation and Orientation of Surfactants and Polymers in Controlling Dispersion/Flocculation and Deposition in Aqueous and Non-Aqueous Suspensions”	Sofia, Bulgaria
ACS Annual Meeting	Effect of Solid Concentration on Polymer Adsorption and conformation	Las Vegas
International Symposium of Geology and Environment	TEM Assessment of Airborne Solid Pollutants	
XX International Mineral Processing Congress	Fatty Acid Treatment of Phosphate ores under Laboratory and Plant Conditions-Current Practices and New Reagent Combinations	Aachen, Germany
Engineering Foundation Conference on Development of Non-renewable resources: Challenges and Solutions	Biotechnologically assisted processing of minerals and wastes	Cairo
AIChE’s 1997 Annual Meeting	Desorption Behavior of Surfactant mixtures at the Alumina-water Interface	Los Angeles CA
AIChE’s 1997 Annual Meeting	Adsorption of N-Alkyl –2—pyrrolidones at the Fluid/Fluid Interfaces	Los Angeles CA
MRS Annual Meeting	Nanocomposite Particles for the Preparation of Advanced Nanomaterial	Boston
HazWaste World Super Fund XVIII	Removal of Nonvolatile Hydrophobic Compounds from Soil by Flotation	Washington D.C
SME annual meeting	Solution and Interfacial Behavior of n-Dodecyl β -D-Maltoside	Phoenix, Arizona
SME annual meeting	Oleic Acid Adsorption on Flotation Feed, Francolite and Quartz: Plant vs. Lab conditions	Phoenix, Arizona
SME annual meeting	Effect of Additives on Stirred Media Milling on Limestone	Phoenix, Arizona
American Chemical Society Meeting	Changes in micelle composition and monomer concentration in mixed surfactant solutions	New Orleans

National Colloid Symposium	Changes in the Structure of Surfactant Aggregates during Adsorption/Desorption Process and its Effects on the Stability of Alumina Suspension	Potsdam
Surface Colloid Symposium	The Role of Interactions of Surfactants and Polymers with Solids in Aqueous and Non-aqueous Dispersions	ICI North America
5 th World Congress of Chemical Engineering	Role of Chemical Additives in Stirred Media Mills	Sand Diego CA
Engineering Foundation Conference on Application of Surface Science to Advance Flotation Technology	Infrared and Electron Spin Resonance Characterization of Oleic Acid Adsorption in Phosphate Flotation	Nantali, Finland
Rone Poulenc Symposium on Surfactants: Spreading, Wetting, Aggregation and Sobulization	Adsorption and Aggregation of Surfactants on Solids and their Role in Dispersion/ Flocculation and Wetting/Flocculation in Aqueous and Non-Aqueous Systems	Princeton NJ
AIChE's annual meeting	Surfactant Adsorption in Non-Aqueous Media	Chicago
	Interfacial Phenomena in Materials Processing	Indian Institute of Science, Bangalore, India
workshop on "Adsorption behavior of polyelectrolyses	Dispersion/flocculation of colloidal systems by controlling adsorption and conformation of polymers	NSF Univ. Co-op research, Center for Polymer Interfaces, Lehigh University
Distinguished Lecture Series on Polymer and Interfaces	Surfactant Polymer Interactions and their role in various interfacial phenomena. Adsorption, wetability, flocculation dispersion	Lehigh University
SME annual meeting	A Study on grinding and energy input in stirred medial mills	Dever
69 th Colloid & Surface Science Symposium	Experimental and Theoretical Aspects on Deposition of Latex Particles	Salt Lake City, Utah
69 th Colloid & Surface Science Symposium	Surface Properties of Oral Bacterial and their Adhesion to Model Tooth Surfaces	Salt Lake City, Utah
69 th Colloid & Surface Science Symposium	Adsorption of Aerosol OT on Alumina in Different Solvents- an ESR Investigation	Salt Lake City, Utah

Oil Technology Program, DOE Review Meeting	Surfactant loss controls in chemical flooding – spectroscopic and calorimetric study of adsorption and precipitation on reservoir minerals	
Interaction Symposium on Micelles, Microemulsions and Monolayers	Electron spin resonance and UV adsorption studies of aerosol-OT Reverse micelles in cyclohexane	Gainesville, FL
International Symposium on Micelles, Microemulsions and Monolayers	Interactions among polymers and surfactants: A spectroscopic electrokinetic and adsorption investigation	Gainesville, Florida
XIV International Mineral Processing Congress	Dissolved mineral species precipitation during coal flotation	San Francisco
	Solubility in non-aqueous media	Amoco, Naperville IL
Materials Research Society Meeting	Coating of Submicron Particles by Nanosize Particles Using Controlled Polymer Adsorption – a Novel Approach for Ordered Nanocomposite Particles	Boston
Communion Annual Meeting	Power Consumption of Stirred Media Mills	Salt Lake City, Utah
International Conference on Mineral Processing: Recent Advances and Future Trends	Recent Advances in Power Requirement and Powder (product) Characteristics of Stirred Media Milling	Kanpur, India
Engineering Foundation Conference on Particle Science & Technology in the 21 st Century	Role of Conformation and Orientation of Surfactants and Polymers in Controlling Flocculation Dispersion Aqueous and Non- Aqueous Suspensions	Pune, India
International Conference on Mineral Processing: Recent Advances and Future Trends	Deposition of latex particles: Theoretical and Experimental Aspects	Kanpur, India
engineering foundation conference on Surface characterization of adsorption and interfacial reaction	In-situ Spectroscopic Investigation of Adsorbed Surfactant and Polymer Layers in Aqueous and Non-Aqueous Systems	Kona, Hawaii
SME Annual Meeting	Role of collector and frother and of hydrophobicity/oleophilicity of pyrite on the separation of pyrite from coal by flotation	Phoenix, Arizona

SME Annual Meeting	Reagents of biological origin in metallurgy	Phoenix, Arizona
Engineering Foundation Convocation Professional Engineering Societies and National Academy of Engineering		Washington D.C.
10 th Surfactants in Solution Symposium	Binding of Surfactants to Polymer: Effect of Polymer Charge, Binding Density and Ionic Strength	Caracas, Venezuela
Tata Research Development Center	Principles of flocculation and selective flocculation	Pune, India
AIChE Meeting	Solubilization mechanism of oxide dispersion in non aqueous media	Denver, Colorado
American Chemical Society	Characterization of surfactant aggregates at solid-liquid interfaces	Washington D.C.
American Chemical Society	Spectroscopic investigation of adsorption and desorption of mixed surfactant layers	Washington D.C.
9 th Annual Regional Phosphate Conference AIME/AICHE/AIPG/FIPR	Fundamentals of Adsorption of Oleic Acid on Flotation Feed and Francolite Theory and Practice	Lakeland, FL.
Engineering Foundation conference on “Emerging Separation Technologies for metals and fuels”	An overview of current and emerging solid/liquid separation techniques	Palm Coast, FL.
	Enhanced flocculation with double flocculants	
symposium on Enhanced oil recovery 205 th National ACS meeting	Solutions and interfacial behavior of sodium dodecyl sulfate (SDS) in the presence of different salt solutions of polyethylene glycol (PEG)	Denver
XVII IMPC Congress	Chelating agents for selective flotation of minerals	
XVIII IMPC Congress	Adsorption of nonionic surfactants, anionic, nonionic mixtures and hydrophobically modified polymers on minerals and its effect on their flotation and dispersion	
67 th ACS Conference	Adsorption of Anionic and Cationic surfactants on minerals and Stabilization mechanisms in Non-Aqueous media	Toronto

DOE contractors review conference	Surfactant loss control in chemical flooding	
	Adsorption of surfactant/polymers and stabilization of dispersions in non-aqueous media	Dept. of Chemical Engineering, Univ. of Tulane, New Orleans
Symposium of Fine Particle and Surface Chemistry	Surfactant Adsorption and Dispersion of Fines in Non-Aqueous Media	University of Tsubuka, Tsubuka, Japan
Engineering Foundation Conference on “Benefication of Phosphate: “Theory and Practice”	Adsorption and flotation characteristics of phosphate ores of different type and origin	Palm Coast FL
Annual Communion Center Seminar	Power consumption of stirred media mills	Berkeley
1992SME Annual Meeting	Ultra Fine Grinding of Ytria-stabilized Zirconia in Polyacrylic acid Solutions	Arizona
1992 SME Annual Meeting	Effect of Salt on Coal Flotation	Arizona
1992 SME Annual Meeting	Recovery of Mineral Values from Phosphaic Clay Waste Using Selective Agglomeration	Arizona
Engineering Foundation Conference on Colloidal Dispersions	Role of Water on the Stabilization of oxide dispersions in Non-aqueous media	Palm Coast Florida
Engineering Foundation Conference on Colloidal Dispersions	Enhanced Flocculation of Dispersions of Alumina Fines Through Manipulation of Polymer Conformation	Palm Coast Florida
Mineral Industry Waste Treatment and Recovery Generic Waste Center Annual Meeting	Selective Flocculation of a Phosphaic Clay Waste– Mechanism of Separation	Reno, Nevada
66 th Colloid and Surface Symposium	Flocculation of Alumina Using Double Flocculations	Morgantown, West Virginia
66 th Colloid and Surface Symposium	Effect of pH and Dissolved Mineral Species on Interfacial Properties of Coal and Pyrite	Morgantown, West Virginia
Research conference on oil Sands at CANMET	Role of Macromolecule – Inorganic Ions – Mineral Interact at the Solid-Liquid Interface on the Stability of Tar Sands Sludges	Alberta, Canada

	The use of Polyelectrolytes to Coagulate Refractory Particles	Pittsburgh Plate Glass Company, Monroeville, Pennsylvania
	Polymer-Surfactant Interactions and its Role in Various Interfacial Phenomena Adsorption, Wettability, Flocculation and Dispersion	Case Western Reserve University, Cleveland
	Interactions Among Surfactant and Polymer in Solution and at Interfaces	International Specialty Products Wayne, New Jersey
Gordon Research Conference on the Science of Hydrocarbon Resources	Polymer Surfactant Interaction Its Effect of Adsorption and Wettability	Hawaii
	Research in Solid-Liquid Separation – Role of Polymer Conformation in controlling Colloid Stability	UOP, Tarrytown, New York
Presidential Review Meeting	Deposition of Latex Particles on Substrates from Concentrated Polymer and Surfactant Solutions	Unilever Research U.S. Inc, Edgewater, New Jersey
Plenary Lecture at the International Conference On Advances in Chemical Metallurgy	Surface Modification for Enhanced Separation/Beneficiation of Minerals	Bombay, India
International Conference on Advances in Chemical Metallurgy	Biomaterial Processing for Flotation Control	Bombay, India
120 th AME Annual Meeting	Floatability of Apatites of Different Nature and Origin	Denver, Colorado
120 th AIME Annual Meeting	Role of pH and Dissolved Mineral Species on the Separation of Pyrite and Ash from Pittsburgh No. 8 Coal by Flotation	Denver, Colorado
Annual Meeting of Mineral Industry Waste Treatment and Recovery Generic Center	Recovery of Mineral Values from Clay Wastes Using Selective Flocculation	Reno
Seminar on Sparkling and Foaming Beverages	Bubble Nucleation and the Effect of Multivalent Metal Ions on Bubble Charges	Epenay, France
Engineering Foundation Conference on Mineral Bioprocessing	Effect of Bacterial Conditioning of Sphalerite and Galena with Thiobacillus Ferroxidans on their Floatability	Santa Barbara, California

Annual Meeting of the International Fine Particle Research Institute	Fundamental Research in Solid-Liquid Separation	Albuquerque. New Mexico
65 th Colloid and Surface Science Symposium	Precipitation of Metal Hydroxide at the Gas-Liquid Interface	Oklahoma
65 th Colloid and Surface Science Symposium	Interaction of the tetradecyltrimethyl Ammonium Bromide with Polyacrylic Acid and Polymethacrylic Acid	Oklahoma
65 th Colloid and Surface Science Symposium	Fluorescence Probing of Ionic-Nonionic Surfactant Layers at Solid-Liquid Interface	Oklahoma
65 th Colloid and Surface Science Symposium	Thermodynamic Study of Mixed Surfactant Adsorption at Alumina-Water Interface	Oklahoma
7 th International Conference on Surface and Colloid Science	Role of Salt in Polymer Surfactant Interaction	International Association of Surface and Colloid Scientists, Compiègne, France
AIChE Summer Meeting	Solution and Association Behavior of Comb-type Polymers	Pittsburgh
	Dispersion and Flocculation	Pittsburgh Plate Glass Company
202 nd Annual ACS Meeting	Dynamic and Steady State Fluorescence Studies of Tetradecyltrimethyl Ammonium Bromide Complexation with Polyacrylic Acid and Polymethacrylic Acid	New York City
202 nd Annual ACS Meeting	Aggregation of Hydrophobically Modified and Comb-type Polymers	New York City
XVII International Processing Congress	Separation of Salt-type Minerals by Flotation Using a structurally Modified Collector	Dresden, Germany
XVII International Processing Congress	Role of Polymer Adsorption and Conformation in Mineral Processing	Dresden, Germany
DOE-Batelle Separation Science Workshop	Principles Techniques and Recent Advances in Fine Particle Aggregation for Solid/Liquid Separation	Hanford, Washing
119 th Annual AIME/SME Meeting	Mineral Processing Applied to Advanced Materials Technology	Salt Lake City, Utah
119 th Annual AIME/SME Meeting	Solution Chemistry of Flocculation of Sparingly Soluble Minerals	Salt Lake City, Utah

119 th Annual AIME/SME Meeting	Effects of Changes in Adsorbed Polyacrylic Acid Conformation on Alumina Slurry Flocculation	Salt Lake City, Utah
	Surfactant and Polymer Adsorption and their Role in Flocculation	University of California at Berkeley
Aqualon Corporation	Sodium Behavior of Hydrophobically Modified Polymers	Delaware
Research Workshop on Technology Requirement and Mining American Mining Congress	Processing Technology: Mineral Fines	Bethesda
International Conference on Fifty Years of Evolution of Metallurgy	Progress and Prospects in Mineral Processing	
DOE Surface Science Information Exchange	Surface Science of Coal	University of Pittsburgh
Colloid and Surface Science Lectures and Workshop	Extraction Fundamentals- Problems and New Directions: Lecture 1 & 2	Alberta Oil Sands Technology and Research Authority, CANMET and Research Department of Syncrude, Canada, Kananakis
Colloid and Surface Science Lectures and Workshop	Extraction Fundamentals- Problems and New Directions: Lecture 3 & 4	Alberta Oil Sands Technology and Research Authority, CANMET and Research Department of Syncrude, Canada, Kananakis
	Polymer Surfactant Interactions	Colgate Palmolive, New Jersey
Annual Sponsors Meeting	Adsorption of Polymers and Surfactants on Solids	Columbia University
11 th Annual Meeting of the International Fine Particle Research Institute	Fundamentals of Solid-Liquid Separation	Karlsruhe, Germany
8 th International Symposium on Surfactants in Solution	Thermodynamic Studies of Adsorption of Alkyl Xylene Sulfonates	Gainesville, Florida
8 th International Symposium on Surfactants in Solution	ESR Investigation of Water Induced Flocculation in Non-Polar Media	Gainesville, Florida
	Behavior of Fines in Bitumen Extraction Systems	Amoco Research, Illinois

64 th Colloid and Surface Science Symposium	Interactions between Polyethylene Oxide and Sodium Dodecylsulfate at the Silica-Water Interface	Lehigh University, Bethlehem PA
64 th Colloid and Surface Science Symposium	Adsorption Mechanism of Anionic/Nonionic Surfactant Mixtures on Kaolinite	Lehigh University, Bethlehem PA
	Spectroscopic Investigation of Interfacial Process – ESR, Raman	Indian Institute of Science, Bangalore
	Spectroscopic Investigation of Interfacial Process – Fluorescence	Indian Institute of Science, Bangalore
	Microstructure of Oxide Minerals	Indian Institute of Science, Bangalore
	Dispersion of Suspension	Indian Institute of Science, Bangalore
US DOE Review of Fossil Energy and Advanced Research	Flotation and Flocculation Chemistry of Coals and Oxidized Coals	Pittsburgh
Distinguished Alumnus Award Lecture at the Indian Institute of Science	Underwater Romances with Interfaces	Bangalore
International Symposium on Surface Charge Characterization, 21 st Annual Meeting of Fine Particles Society	Electrokinetic Characteristics and the Effect of Solid /Liquid Ratio	San Diego
	Fine Particle Interaction	Engelhard Corporation, New Jersey
Ralph K. Lier Memorial Symposium on the Colloid Chemistry of Silica, 200 th ACS National Meeting	Adsorption of Nonionic Surfactants on Silica	Washington D.C
2 nd World Congress on Powder Technology	Effects of the Conformation of Polyacrylic acid on the Dispersion/Flocculation of Alumina and Kaolinite Fines	Kyotto, Japan
	Spectroscopic Investigation of Dispersions Using Polymers	University of Tsukuba
	Fundamentals of Flotation Chemistry	Allied Signal Inc., Morristown, New Jersey

at the Third International Conference on Fundamentals of Adsorption,	“Studies of Adsorbed Surfactant Layers at the Solid /Liquid Interface using Electron Spin Resonance,” (with C.A. Mallbrel)	Sonthofen, West Germany. May 7-12, 1989/
	“Dispersion of Solids in Aqueous and Non-aqueous Media,”	At Colgate-Palmolive, Piscataway, Mary 16, 1989.
	“Problems Related to Thixotropic Agents: Modified Clays and Solvents,”	at Moet-Hennesey, France, May 27, 1989.
at the 10 th Annual Meeting of the International Fine Particle Research Institute,	“Some Novel Conceptions in the control of Non-Aqueous Dispersion Stability,” (with C.A. Mallbrel)	New Jersey, June 4-10, 1989.
at the 10 th Annual Meeting of the International Fine Particle Research Institute,	“Fundamental Research on Solid/Liquid Separation,” (with (with Y.B. Huang and K.F. Tjipangandjara	New Jersey, June 4-10, 1989.
at the 63 rd ACS Colloid and Surface Science Symposium, Seattle,	“Effect of Surfactant Structure on Adsorption,” (with A. Silvakumar and S. Thach)	June 18, 1989.
at the 63 rd ACS Colloid and Surface Science Symposium,	“Localization of Tris (2,2-bipyridyl) Ruthenium (II)Chloride in Micelles and Hemimicelles,” (with J.T. Kunjappu, N.J. Turro and A Silvakumar,)	Seattle, June 18, 1989.
at the Department of Energy,	“Corel Surface Control for Advanced Physical Fine Coal Cleaning Technologies,”	Pittsburgh, July 10,1989.
	Micelle Formation and Solubilization,”	at Colgate-Palmolive, Piscataway, August 3, 1989.

at the International Symposium on Advances in Fine Particle Processing,	“Correlation of Adsorption of Surfactants and Fracture and Grinding of Quartz,” (with H. El-Shall)	Boston, August 22, 1989.
at the International Symposium on Advances in Fine Particle Processing,	“Effects Poly (Acrylic Acid) Concentration on its Conformation & on the Stability of Alumina Suspensions.” (with K.F Tj pangandjara)	Boston, August 23, 1989.
at the International Symposium on Advances in Fine Particle Processing,	“Surface Characterization of Surfactant Modified Colloidal Oxide Minerals,” C.A. Malbrel, M. Francois and J.M. Cases Boston,	August 23, 1989.
at the International Symposium on Advances in Fine Particle Processing,	“Selective Desliming of Fine Iron Ores based on Aggregation between Magnetite and Hematite,” (with Q. Xu)	Boston, August 25, 1989.
at the 6 th Annual International Pittsburgh Coal Conference,	“Air Oxidation of Bituminous Coals and its Effect on Floatability – Diffuse Reflectance Infrared Fourier Transform Analysis,” (with Liping Xiao and T.V. Vasudevan,)	Pittsburgh, September 28, 1989.
at the Titanium Resources and Benefication Conference,	“Titania Carrier Flotation” Pennsylvania,	September 28, 1989.
at University of California	“Coal Surface Control for Advance Physical Fine Coal Cleaning Technologies,”	at Berkeley, October 20, 1989.
at the Engineering Foundation Conference on Advances in Coal and Mineral Processing	“In-situ Characterization of Solid/Liquid Interfaces and Adsorbed Layers,” (with A. Silvakumar) Using Flotation,	Palm Coast, Florida, December 4, 1989.

at the Battelle Conference on Solid/Liquid Separation: Waste Management and Productivity Enhancement,	“Role of Polymer and Surfactant Adsorption and Microstructure of Adsorbed Layer in Solid/Liquid Separation,” (with K.F. Tjipangandjara and C. Maltesh)	Columbus, Dec 4-6, 1989.
at University of California,	“Coral Surface Control for Advanced Physical Fine Coal Cleaning Technologies,”	Berkeley, December 14, 1989.
at the Indo-U.S seminar on Special Topics in Mineral Processing,	“Advances in Characterization of Adsorbed Layers by Spectroscopic Techniques,” (with T. Kinjappu)	Pune, India, January 1, 1988
117 th AIME/SME Annual Meeting,	“Ca/Mg Enrichment of Dolomite Surface in Aqueous Solutions,” (with S.E. Elmorfy and K.V. Vviswanathan).	Phoenix, January 24, 1988
	“Interactions Between Anionic Collects and Alizarin Modifiers in Francolite/Dolomite Flotation,” (with Liping Xiao and K.V. Viswanathan)	
117 th Annual AIME/SME Meeting,	“Surfactant-solid Interactions,” (with K.P. Ananthapadmanabhan)	Phoenix, January 27 1988.
Engineering Foundation Conference on Dewatering and Flocculation, AIChE,	Fluorescence Probe Studies of Polymer-Surfactant Interactions at the Solid-Liquid Interface,” (with R. Ramachadran)	January, 1988).

Engineering Foundation Conference on “Dewatering and Flocculation,” AIChE	“Modern Techniques to Elucidate Polymer Confrontations at Interfaces and Floc Structures” (with R. Ramachadran),.	January, 1988)
	“Processing of Mineral Fines: Surfactant and Polymer Adsorption in Flotation and Flocculation,” (with Dupont)	Willmington, Delaware, February 4, 1988.
	“Surface Properties of Clay Mineral and their Particle Interactions in Suspensions,” (with (Lever Brothers)	New Jersey, February 4, 1988.
Gordon Conference on Organic Thin Films,	“Micro-structure of Surfactant and Polymer Layers on Solids,”	Oxnard, California, February 15-19, 1988.
	“Adsorption of Surfactants and Polymers on Solids and the Interactions between them (with: Lever Brothers)	New Jersey, March 15, 1988.
Henry Krumb Lecture Series,	“A mineral Engineers Voyage for Survival,	Oklahoma City, Oklahoma, March 17, 1988.
International Technical Conference on Flirtation and Separation, American Filtration Society,	“Polymeric Flocculation and Sedimentation,”	Ocean City, Maryland, March 22, 1988.
	“Adsorption of Surfactants: A review and Update,”	Colgate Palmolive, New Jersey, April 19, 1988.
	Interfacial Chemistry of Solid Separation: The Problem of Carbonates,”	Amoco Oil Company, Napeville, Illinois, April 22, 1988.
Henry Krumb Lecture Series,	“A Mineral Engineer’s Voyage for Survival,”	Michigan Technological University Houghton, Michigan, April 27, 1988.

	“Adsorption of Surfactants and Polymers on Solids,”	Georgia Tech, Atlanta, May 3, 1988.
Invited Lecture at the 8 th International Conference on Surface and Colloid Science,	“Sequential Polymer Adsorption and Flocculation Effects: Competition, Displacement and Reconfiguration Process” (with R. Ramachandran),	Hakone, Japan, June 5-10, 1988.
at the Third Chemical Congress of the North American Continent,	“Thermodynamics of Adsorption for Anionic-nonionic Surfactant Mixtures on Alumina (with E. Fu)	Toronto, Canada, June 5-11, 1988.
International Symposium on Adsorption,	“In-situ Investigation of Adsorbed Surfactants and Polymers on Solids in Solution,” (J.T. Kunjappu)	Kyoto, Japan, June 1988.
62 nd Colloid and Surface Science Symposium	“Polyethylene oxide Sodium Dodecyl Sulfate Interactions in Bulk and at the Solid/Liquid Interface,” (C. Maltesh and R. Ramachandran (,	University Park, June 19-22, 1988.
62 nd Colloid and Surface Science Symposium,	“Correlation of Polyacrylic Acid Conformation with Alumina Flocculation,” (with K. Tjipangandjara)	University Park, June 22, 1988.
62 nd Colloid and Surface Science Symposium,	“Interactions Between Dissolved Mineral Species and Structurally Modified Collectors in Dolemite/Francolite Flotation Systems,” (with L. Xiao and K.V. Viswanathan)	University Park, June 19-22, 1988.
Annual Meeting of the International Fine Particle Research Institute,	“Fundamental Research on Solid/Liquid Separation,” (with Y.B. Huang and K. Thipangandjara)	Cambridge, U.K. June 30-July 03, 1988.

	“Adsorption of Polymers,”	Colgate, Palmolive, New Jersey, July 18, 1988.
18 th Annual Meeting of the Fine Particle Society,	“Solution Chemistry of Phosphate Flotation,” (with L. Xiao	Santa Clara, CA, July 20-25, 1988.
Trilateral Symposium on Particology,	“Correlation of Flocculation with Adsorbed Polyacrylic acid Conformation,” (with Y.B. Huang K. Tjipangandjara)	Beijing Peoples Republic of China, September 05-09, 1988.
Henry Krumb Lecture Series,	Advances in the Processing of Fines and Ultrafines,”	Mullberry, Florida, September 6, 1988.
National Science Foundation,	“Interactions of Polymers and Surfactants with Solids from Liquids,” (with	Washington, D.C., September 9, 1988.
Allied Signal Engineering Materials Research Center Invitational Lecture Series,	“Separation of Solids from Liquids,”	September 22, 1988.
Invited Lecture at the 7 th International Symposium on Surfactants in Solution,	“Flourescence Probe Investigations of Polyethylene oxide Sodium Dodecyl Sulfate Interactions in the Vulk and at the Solid/Liquid Interface,” C. Maltesh and R. Ramachandran,	Ottawa, Canda, October 02-07, 1988.
	“Interactions of Surfactants and Polymers with Solids,”	Lion Soap Company, Japan, October 24, 1988.
	“Principles of Flocculation Dispersion and Selective Flocculation,”	University of of Tsukuba, Japan, October 24, 1988.
One week Lecture series Sponsored by UNDO,	“Fundamentals of Phosphate Rock Processing,” (L. Xiao)	Lianyungang, China , October 27 to November 03, 1988

Henry Krumb Lecture Series,	“A Mineral Engineer’s Voyage for Survival,”	St. Paul, Minnesota, November 3, 1988.
International Symposium on Material Science and Extractive Metallurgy of W, Ti, Sb and Rare Earths,	“Solution Chemistry of Flocculation Sparingly Soluble Minerals,” (with L. Xiao)	Changsa, China, November 06-09, 1988.
Beijing Graduate School of China University of Mining and Technology,	“Doctoral Education in Mineral Engineering in the U.S.” (with L. Xiao)	at the Beijing, China, November 21, 1988.
Union Carbide Corporation, Boundbrook,	“Interactions between Polymers and Clays,”	New Jersey, November 20, 1988.
at the Beijing Graduate School of China University of Mining and Technology,	“Solution Chemistry of Phosphate Flotation,” (with L. Xiao)	Beijing, China, November 21, 1988.
	“Polymer Surfactant Interactions,”	Colgate Palmolive, New Jersey, November 22, 1988
AIChE Annual Meeting,	“Effect of Water on Dispersion Behavior Colloidal Suspensions in Apolar Media,” (C.A Malbrel)	Washington D.C. November 30, 1988.
at an International Symposium Honoring Douglas W. Furstenau on his 60 th Birthday,	“Challenges, Opportunities and Principles of Interfacial Technologies at Challenges in Mineral Processing	Berkeley, California, December 7-9, 1988.
	“Surfactant Adsorption on Solids,”	Duracell Corporation, December 16, 1988.
Filtration Society of USA,	“Polymeric Flocculation and Sedimentation,” (with R. Ramachandran)	March 21, 1988.
AIChE Meeting,	”Displacement of Polyelectrolytes,” (with R. Ramachandran)	New York, November 18, 1987.

	“Short Term Kinetics of Polymer Adsorption on Glass Substrate,”(with A. Sivakumar	
International Symposium on Extractive Metallurgy and Material Science ,	“Interaction Between Dissolved Mineral Species and Surfactants (with L. Xiao and K.V. Viswanathan, International,	Changsha, China September 24, 1987
	“The Effect of Step Size in the Diffusion Limited Aggregation Model on Cluster Structure,”	
AIChE Annual Meeting,	(with Y.B. Huang)	New York, November 19, 1987.
Stauffer Chemicals,	“Dispersion and Flocculation of Particulate Systems,”	Richmond, March 19, 1987.
MRRC seminar,	“Fine Particle Processing,”	July 13, 1987.
Rensselaer Polytechnic Institute,	“Adsorption of Polymers and Surfactants: Spectroscopic Evidence of Adsorbed structures,”.	March 19, 1987
AMOCO Oil,	“Interfacial Chemistry of Solid Separation: The Problem of Carbonates,”	Napeville, November 23, 1987.
Engineering Foundation’s Second International Conference on Separation Technology,	“Solid/Solid Separation in Aqueous Medium,”	Schloss Elmau, West Germany, April 29, 1987.
American Ceramic Society Annual Meeting,	“Mineral Solution Equilibria and Interfacial Properties of Solids*With K.P. Ananthapadmanabhan)	April 1987.
	“Polymer/Surfactant Interactions on Solids,”	Colgate Palmolive, New Jersey, May 8, 1987.

Engineering Foundation Conference,	"State of the Technology: Where to go from here? Sludge Technology: Theory and Practice of Dewatering,	Henniker, New Hampshire, July 3, 1987.
Department of Energy Workshop on Surface Properties of Coal and Coal Minerals,	"Chemical Characterization,".	Pittsburgh, August 13, 1987
Symposium on Superconductivity and Applications,	"Superconducting High Gradient Magnetic Fields for Advanced Separation,"	September 28, 1987.
.AIChE Annual Meeting	"Adsorption Model for a Nonionic-Anionic Surfactant Mixture," (with E. Fu)	New York, November 16, 1987.
Indo-US Seminar on Special Topics in Mineral Processing,	"Advances in Understanding of Flotation Mechanisms," (with A. Sivakumar)	Pune, India, December 30, 1987.
Gordon Conference on Organic Thin Films,	"Micro-structure of Surfactant and Polymer Layers on Solids,"	Oxnard, California, February 15-19, 1987.
	"Adsorption of Polymers,"	IBM, San Jose, California, June 15, 1987.
at the 115 th Annual Meeting of the American Institute of Mining, Metallurgical and Mineral Engineering(AIME),	"Application Fluorescence Spectroscopy to the Study of Surfactant Adsorption at the Solid-Liquid Interface," (withs P. Chandar and N.J. Turro)	New Orleans, March, 1986.
at the 119 th Annual American Chemical Society (ACS) Meeting,	Fluorescence Probe Studies on the Structure of the Adsorbed Layer of Dodecysulfat at the Alumina-Water Interface," (with P. Chandar and N.J. Turro)	New York, 1986.

at the International Symposium on Surfactants in solution,	“Fluorescence and ESR Spectroscopic Studies of Hemimicellization of Ionic Surfactants at the Solid-Liquid Interface,”(with P. Chandar, N.J. Turro and K.C. Waterman)	New Dehli, India, August 19, 1986.
at the 116 th AIME Meeting,	“Use of ESR Probes to Study Surfactant Adsorption at the Solid-Liquid Interface,” with P. Chandar, N.J. Turro and K.C. Waterman).	Denver, 1987
at the 17 th Fine Particle, Society Meeting,	“Size Exclusion Chromatography and Polymer Adsorption,” (with R. Remachandran)	San Francisco, July 30, 1986.
at the 116 th AIME Meeting,	“Polyelectrolyte Adsorption-A Size Exclusion Chromatographic Study” (with R. Ramachandran)	Denver, February 13, 1986.
at the 116 th AIME Meeting,	“Flocculation of Oxide Minerals Using Poly ethylene Oxide (withs Erkan Koxsel and R. Ramachandran)	Denver, February 13, 1986.
at the NATO Advanced Study Institute for Mineral Processing at a Crossroads,	“An Overview of the Ultr-Fine Problem,”	Falmouth Cornwall, England, March 26, 1986.
at the IFPRI Annual Meeting,	“Solid liquid Separation”	Brussels, Belgium, April 22, 1986.
A discussion at Interfacial Phenomena in the New and Emerging Technologies: The National Science Foundation Workshop,	“Electrochemistry – A Challenge for Academia,”	Boulder, CO, May 31, 1986.

at the 60 th ACS for Colloid and Surface Science Symposium,	“Role of Dissolved Mineral Species on the Adsorption on Sulfonates on Reservoir Minerals (with K.V. Viswanathan and P. Siracusa)	Atlanta, Georgia, June 16, 1986.
at the: a Conference by the National Science Foundation,	“High-Technology Electronic Ceramics,” at the Role of a Surfactants in the New and Emerging Technology	Brooklyn College, New York, June 6, 1986.
Petroleum Engineers Forum for Reservoir Mechanisms of Chemical Flooding,	“Surfactant Adsorption at the Society for	Jackson, Hole, Wyoming, July 30, 1986.
at the International Symposium on Surfactant in Solution,	“Surfactant in Minerals and Material Separation,”	New Delhi, August 19, 1986.
at Seminar on Chemistry and Applications of New Reagents for Mineral Benefication,	Keynote Address: “Recent Advance in Mineral Processing: An Overview,”	Pune, India, August 29, 1986.
on Advanced Topics in Surfactant Solutions,	“Spectroscopic Investigation of Adsorption at Workshop	Bombay India, August 28, 1986.
at the 1 st International Mineral Processing Symposium,	“Effect of Chemical Additives on the Pulp Fluidity and Grinding on Wet Batch Ball Milling,” (with A. Atli)	Izmir, Turkey, September 29, 1986.
at the 1 st International Mineral Processing Symposium,	“Dewatering of Slimes and Sludges,”(with K.V. Neir)	Izmir, Turkey, September 30, 1986.
Recovery Light Oil Annual Review Meeting,	“Adsorption from Flooding Solutions in Porous Media: A study of Interactions of Interactions of Surfactants and Polymers on Reservoir Minerals,”	Rookville, Maryland, October 29, 1986.

at the International Conference on Recent Advances in Solid/Liquid Separation,	Interfacial Phenomena in Solid/Liquid Separation	Columbus, Ohio, November 13, 1986.
at the 116 th Meeting of AIME, Denver,	“Correlations of Adsorption of Surfactants with Fracture and Grinding of Quartz,”	CO. February 24, 1984.
at the World Congress on Particle Technology Part 2,	“Effect of Chemical Additives on the Pulp Fluidity and Grinding on Wet Batch Ball Milling,” (with A. Atli)	Nuremberg, Germany, April 18, 1986.
at the ACS Symposium on Surfactants and Association Colloid: in Mineral and Material Systems,	“Correlation of Adsorption of Surfactants with Fracture and Grinding of Quartz (with H. El-Shall and A. Atli)	England, April 16, 1986.
at the ACS Symposium on Surfactants and association Colloids in Mineral and Material Systems,	“Adsorption of Ethoxylated Sulfonates on Kaolinite and Alumina,” (with K.V. Viswanathan)	England, April 18, 1986.
at the ACS Symposium on Surfactants and Association Colloids in Mineral and Material Systems,	“Role of Mineral Dissolution in the Adsorption of Docylbensulfonate by Kaolinite and Alumina (with P. Siracusa)	England, April 18, 1986,”
at the 2 nd International Symposium on Benefication and Agglomration Bhubaneswar	“Benefication of Dolomitic Apatite: A new Hydrometallurgical Method,” (K.V. Nair),	India, December 17, 1986
at the Proceedings of Use of Surface Deformation Models to Predict Tribological Behavior,	“Role of Nanostucture of Adsorbed Layers in Lubrication,”	New York, December 18, 1986.

at Proceedings of 6 th International Symposium on Surfactants in Solution,	“Investigations into the Structure of Adsorbed Layer Dodecylsulfate at the Alumina-Water Interface” (withs P. Chandar, N.J. Turro and C. Waterman)	New Delhi, August 19, 1986.
at Penn State, State College, Pennsylvania,	“Mechanism of Adsorption Flocculation/Dispersion of Particulate Systems,” as an invited Lecturer Particulate	December 4, 1986.
at Colgate Palmolive Co.,	“Spectroscopic Investigations of Adsorption,”	Piscataway, New Jersey, December 14, 1986.
at the 115 th AIME Meeting,	“Effect of Temperature on Interfacial Properties of Silicates,”	New Orleans, March 4, 1986.
at the 115 th AIME Meeting,	“Application of Fluorescence Spectroscopy to they Study of Adsorption at the Solid-Liquid Interface,”	New Orleans, March 6, 1986.
at the 115 th AIME Meeting,	“Solution Chemistry of Flotation,”	New Orleans, March 3, 1986.
116 th Annual Meeting of the Fine Particles Society,	“Surfactant Depletion in Mixed Mineral Systems,	Miami, April, 1985.
de Physico-Chimie des Systems Polyphases,	“Adsorption Surfactants, CNRS	Laboratoire Montpellier, France, June 3, 1985.
XV International Mineral Processing Congress,	“Surface Precipitation of Surfactants and Inorganics on Mineral Solids and its Role in Adsorption and Flotation,”	Canes, France, June 4, 1985.
XV International Mineral Processing Congress,	Calcite-Apatite Interactions and their Effects in Selective Flotation Using Oleate,”	Canes, France, June 6, 1985.

59 th American Chemical Society Colloid Symposium,	“Flocculation of Sulfides and the Role of Complexing Agents on it,”	Potsdam, June 24, 1985.
59 th American Chemical Society Colloid Symposium,	“Two and One Dimensional Flocculation of Silica Spheres on Substrates,	Potsdam, June 26, 1985.
Metallurgical Society of Indian Institute of Science & Indian Institute of Metals Bangalore Chapter,	“Role of Surface Precipitation in Adsorption and Flotation,”.	Bangalore, India, July 8, 1985
on “Interfacial Forces in Ceramic Processing” Solid State Studies,	“Surfactants and Wetting Behavior, at the Gordon Research Conference	July 30, 1985.
Engineering Foundation Conference on “Science and Technology of Processing Fine Coal,”	“Oxidation and Aging Effects on Flotation Fine Coal,”	Henniker, N.H. August 13, 1986.
Colgate-Palmolive Research Center,	“Adsorption and Flocculation,”	Piscataway, NJ. November 1985.
	“Interfaces, Exxon Course,	Florham Park, N.J. November, 1985.
Illinois Institute of Technology,	“Adsorption from Solutions,”	Chicago, November 21, 1985.
Flocculation, Colgate-Palmolive Research Center,	“Two and One Dimensional	Piscataway, NJ. November 25, 1985.
Engineering Foundation Conference on “Recent Developments in Comminution,”	“Effect of Chemical Additives on Fracture Process,	Kona Hawaii, December 11, 1985.
Arbiter Symposium on Advances in Mineral Processing, 115 th Annual Meeting of the AIME,	“Solution Chemistry of Flotation,”	New Orleans, March 3, 1986.

at the Solid- Liquid Interface, 115 th Annual Meeting of the AME,	“Application of Fluorescence Spectroscopy to the Study of Surfactant Adsorption	New Orleans March, 1986
International Conference on Recent Advances in Mineral Science and Technology (presented in Abstracts),	“Surface Interactions in Fine Particle Flotation,	Johannesburg March, 1984.
	“Adsorption of Surfactants and Polymers and its role in the Separation of Solids,	Brooklyn, College, April 11, 1984.
International Symposium on Polymer Colloids,	“Flocculation of Clays Using Acrylamides under different hydrodynamic conditions,	Montreal, June 5, 1984.
at 15 th Annual Meeting of Fine Particle Society,	“Flocculation of Hematite Fines,” Orlando,	July 30-August 1, 1984.
	“Recent Developments in Selective Flocculation,	Cleveland, Ohio, November 8, 1984.
	“The Effect of Chemicals on Grinding,”	Cleveland, November 8, 1984.
12 th World Mining Congress,	“Effect of the Chemicals environment in drilling,	New Delhi, November 21-28, 1984.
at Seminar on Environmental Aspects of Geology,	“Processing of Low quality ores within environmental constraints, (keynote lecture)	Trivandrum, November 26, 1984.
Reagents the Mineral Industry Conference,	“Chemistry and Applications of Chelating Agents in Flotation and Flocculation,”.	Rome, September 19, 1984
International Workshop on Future Science and Technology Polymers: Commodities or Specialties,	“Application of Polymers in Mineral Processing,	Capri, Italy, October 8, 1984.

Engineering Foundation Conference on Flocculation, Sedimentation and Consolidation,	“Polymer and Surfactant Interactions in Flocculation and Sedimentation	Sea Island, Georgia, Jan 31, 1985.
114 th AIME Annual Meeting	“Effect of Dissolved Mineral Species on Flocculation of Sulphides, ,	New York, February 25, 1985.
	“Adsorption of Oleate on Hematite:	Feb 27, 1985.
114 th AIME Annual Meeting,	“Mineral Solution Equilibria in Sparingly Soluble Mineral Systems,	New York, February 27, 1985.
113 th AIME annual Meeting,	“Molecular Orbital and UV Spectroscopic Investigation of Adsorption Mechanisms of Oxime Collectors,	New York, February 28, 1985.
112 th AIME Annual Meeting,	“Chemical Equilibria in Hydrolyzable Surfactant Solutions and their Role in Flotation,	Atlanta, March 7, 1983.
112 th AIME annual meeting,	“Mechanochemical Effects in Ultrafine Grinding,	Atlanta, March 8, 1983.
112 th AIME annual meeting,	“The Role of Surface Phenomena in the Benefication of Fine Particle, Antoine M. Gaudin Lecture,	Atlanta, March 8, 1983.
AIME annual meeting,	“Selective Interactions of Reagents in Apatite and Calcite Systems,	Atlanta, March 9, 1983.
112 th AIME annual meeting,	“Carrier Flotation of Clay and its Physicochemical Mechanisms,	Atlanta, March 8, 1983.

112 th AIME annual meeting,	“Flocculation of Kaolinite Using Polyacrylamide,	Atlanta, March 9, 1983.
AICHE Meeting,	“Surfactant-polymer Interaction and its effect of interfacial adsorption and polymer solution properties,”	Houston, March, 1983.
Brookhaven National Lab,	“Interaction of surfactants with reservoir minerals,	Stonybrook, March 25, 1983.
Amer. Inst. Chem. Engineers Meeting,	“Role of electrostatic micellar exclusion in adsorption phenomena,	Houston, March 27-31, 1983.
University of California, Berkeley,	“Carrier flotation,”	May 3, 1983.
	“Flotation of Salt-type minerals.	University of California, May 3, 1983.
University of Lulea,	“Surface Chemistry in Flotation,”	Sweden, May 9, 1983.
Ytkemi 1 Flotation Processor Symposium,	“Surface Chemistry of Flotation: The flotation of oxides,	Stockholm, May 10, 1983.
Ytkemi 1 The flotation of oxides, Flotation Processor Symposium,	“Surface Chemistry of Floating Fines,	Stockholm, May 10, 1983
Engineering Foundation Conference,	“Adsorption of Polyacrylamides on hematite and Silica – Effect of Polymer-Surfactant Interactions,	May 6-11, 1983.
Dept. of Energy Meeting,	“Adsorption from Flooding Solutions,	Dallas, May 17, 1983.
International symposium on oil field and geothermal chemistry,	“Precipitation/Redissolution phenomena in sulfonate/AICI solutions,	Denver, June 1-3, 1983.

SPE 1983 oil field and geothermal chemistry,	“Adsorption of sulfonate on kaolinite, gypsum and other problem minerals,	June 1-3
Fine Particle Society Pacific Region Meeting,	“Role of surface interactions in beneficiation of mineral fines, plenary lecture,	August 1-5. 1983.
Fine Particle Society Meeting, Honolulu,	Electrokinetic behavior of hematite in the presence of polymers and surfactants,	August 1-5, 1983.
American Chemical Society National Meeting,	“Adsorption of anionic polyacrylamides on kaolinite and its flocculation and stabilization presented at the symposium on “Colloidal Particles: polymer adsorption and steric stabilization,”	Washington D.C., September 1, 1983.
American Chemical Society Symposium, ACS National Meeting,	“A study of polymer/surfactant interaction at the mineral/solution interface,	Washington, D.C. August 28-September 1, 1983.
American Chemical Society,	“Relation between structure and adsorption of surfactants.	Washington, D.C., September 1, 1983.
International Conference Powder Metallurgy and Related High Temperature Materials,	“Morphology of fine particles produced by grinding (in abstebtia),	Bombay, December 16, 1983.
British Petroleum Company Research Centre. Sunbury-on-Thomas,	Interaction between surfactants and polymers with reservoir minerals,,	U.K., February 6, 1984.
minerals, physico-chimie des Surfaces et des Membranes, CNRS,	“Adsorption of Surfactants and polymers on	Paris, February 7, 1984.

Interactions solids-liquide,”	“Interactions between surfactants and polymers with minerals, (keynote lecture), Colloque-Bilan, “	Nancy, France, Fer
	10, 1984.	
Annual AIME meeting,	“Particle-bubble interactions and flotation maximum,	February 28, 1984.
Annual AIME Meeting,	“Surface precipitation on minerals and its role in adsorption and flotation,	February 28, 1984.
International Conference on Recent Advances in Mineral Sciences and Technology, Mintek, 50,	“Surface Interaction in Fine Particle Flotation, Plenary lecture (presented in abstentia),	Johannesburg, March 26-30.
Brooklyn College, City University of NY.	“Adsorption of Surfactants and Polymers and its role in the separation of solids,	April 11, 1984.
Eight International Symposium on Column liquid chromatography,	“Characterization of surfactants for enhanced oil recovery process by high performance liquid chromatography,	New York, May, 1984.
American Institute of Chemical Engineers/Engineering Foundation Conference,	“Foams and Flotation,” Pacific	Grove, November 1, 1977.
Fifth Symposium on Improved Methods for Oil Recovery, SPE-AIME,	“Adsorption of Sulfonates on Reservoir Rocks,”	Tulsa, April 16, 1978.
52 nd Colloid and Surface Science Symposium,	“Solution Chemistry of Surfactants and the Role of it in Mineral-Water Systems,”	Knoxville, June 14, 1978.
Exxon Research & Engineering CO.	“Adsorption of Surfactants on Reservoir Minerals,”	Linden, N.J., October 6, 1977.

“Amoco Production Co.,	“Interactions of Sulfonates and Polymers with Minerals,	Tulsa, October 14, 1977.
Occidental Research Corporation,	“Adsorption of Surfactants on Reservoir Minerals,”	La Verne, California, November 1, 1977.
	“Selective Flocculation Fines,” Symposium on the Physical Chemistry of Mineral-Reagent Interactions in Sulfide Flotation,	College Park, Maryland, April 7, 1978.
at the 7 th International Congress of Surface Active Substances,	“Surface Active Properties of Certain Micellar Systems for Tertiary Oil Recovery,”	Moscow, September 12-18, 1976.
at the Annual AIME Meeting,	The Role of Unavoidable Chemical Species in Calcite/Apatite Flotation,” (with K.P. Ananthapadmanabhan)	Atlanta, March 6-10, 1976.
the ACS Centennial Meeting, San Francisco,	“Selective Flocculation of Mineral Slimes Using Modified Polymers,” (with C.G. Sresty and A. Raja)	August 29-September 3, 1976.
at the Annual AIME Meeting,	“Grinding of Quartz in Amine Solutions,” (with S. Vidange, H. El-Shall	Atlanta, March 6-10, 1977.
at the Centennial ACS Meeting,	“Chelating Agents as Flotoids: LIX – Copper Minerals Systems,”	San Francisco, August 29-September 3, 1976.
Annual SME-AIME Meeting,	“Commercial Chelating Extractants as Collectors: Flotation of Copper Minerals Using LIX Reagents (coauthor D.R. Nagaraj)	Atlanta, March 6-10, 1977.

National Academy of Sciences, Muscle Shoals,	“Current Research in Academic Institutions on Accessory Elements in Phosphates,” Workshop of Committee on Accessory Elements - Phosphates Panel,	Alabama, February, 1977.
Workshop on mineral technology of National Academy of Sciences,	“Processing of Mineral Fines,” (with Dr. D.W. Fuerstenau),	Washington, D.C., February, 1977.
Technical University of Wroclaw, Wroclaw,	“Adsorption of Surfactants on Minerals in Aqueous Solutions,”	Poland, September 21, 1976.
Department of Mines and Geology,	“Current Research in Mineral Processing,”	Bangalore, India, February 7, 1977.
at the Conference on Non- Renewable Resources: Surface Chemistry and Mineral Processing,”	Problems Research Needs in Non-Renewable Resources Area,” (keynote speech)	Bangalore, India, April 6, 1977.
	“Interfacial Processes in Flotation,” Special Address, Conference on Non- Renewable Resources: Surface Chemistry and Mineral Processing,”	Bangalore, India, April 7, 1977.
	“Dewatering and Clarification in Slow Settling Sludges,” Special Address Conference on Non- Renewable Resources: Surface Chemistry and Mineral Processing,”	Bangalore, India, April 7, 1977.

	“Dewatering and Clarification in Slow Settling Sludges,” Special lecture on Non-Renewable Resources: Surface Chemistry and Mineral Processing,”	Bangalore, India, April 7, 1977.
Bhabha Atomic Research Centre,	“Physical Chemistry of Flotation Processes,”	Bombay, March 7, 1977.
Dept. Chem. Engineering, Indian Institute of Technology,	“Flotation Optimization,”	Bombay , India, March 8, 1977
Indian Institute of Technology,	“Current Research in Mineral Processing,”	Mandras, India, March 9, 1977.
The Institution of Engineers,	“”Minerals—Endangered Species?”	Madras, India, March 9, 1977.
Regional Engineering College,	“Processing of Mineral Fines,”	Suratkal, India, March 15, 1977.
Regional Engineering College,	“Physico-chemical Aspects of Mineral Processing,”	Suratkal, India, March 21, 1977.
National Metallurgical Laboratory,	“Research Needs in Mineral Processing,”	Jamshedpur, India March 21, 1977.
National Metallurgical Laboratory, Jamshedpur,	“Research Needs in Mineral Processing,”	India March 21, 1977.
Indian Institute of Technology,	“Dewatering of Slow Setting Suspensions,”	Kanpur, India, March 23,1977.
	“The Mechanism of Dewatering Phosphate Slimes,”	CSIRO, Port Melbourne, May 31, 1977.
	Some Colloid and Surface Chemical Aspects of Mineral Separation,”	University of Sydney, June 7, 1977/

	“Effects of Pretreatment o Minerals on Their Interfacial Properties,	University of Queensland, Brisbane, June 8, 1977.
	“Fine Particles Treatment,”	Mount Isa Mines, Mount Isa, June 10, 1977.
	“Mineral Engineering Research at the Henry Krumb School of Mines,”	The Australian National University, Canberra, June 14, 1977.
	“Adsorption of Surfactants at Mineral-Liquid Interface,”	University of Melbourne, June 15, 1977.
Royal Australian Chemical Institute,	“Enhanced Oil Recovery From Reservoirs: Surfactant Depletion Problems,”	Melbourne, June 16, 1977.
Monash University,	“Processing of Mineral Fines,”	Clayton, Australia, June 17, 1977.
The Australian Institute of Metallurgy,	“Fine Particles Treatment and Research Opportunities in Mineral Processing,”	Broken Hill, Australia, June 20, 1977.
7 th Annual Fine Particle Society Conference,	“Mineralogical Heterogeneity of Ore Particles and Its Implications in Their Separation Characteristics,” (with R.D. Kulkarni)	Philadelphia, August 19, 1975.
81 st National Meeting of American Institute of Chemical Engineers,	“Physic-Chemical Adsorption at Solid/Liquid Interfaces,” (with H.S. Hanna)	Kansas City, April 13-14, 1976.
37 th Annual Mining Symposium, Duluth,	“Research Opportunities in Mineral Processing,”	January 14-16, 1976.
National Science Foundation Harriman,	“Fine Particles Treatment,”	New York, August 1-3, 1976.

105 th Annual AIME Meeting, Las Vegas,	“Flotation of Salt Type Minerals,” (with H.S Hanna)	February 22-26, 1976.
EUCHEM Conference,	“Interfacial Processes in Non-Metallic Mineral Flotation,”	France, 26-30,1976.
Swiss Federal Institute of Technology,	“Interfacial Chemistry of Particulate Flotation,”	Zurich, May 4, 1976.
International Paper Company, Tuxedo Park,	“Electrical Coagulation,”	New York, November 20, 1975.
Indian Institute of Science,	“Fine Particle Processing,”	Bangalore, India, September 2, 1975.
Occidental Research,	“Fine Particle Processing,”	La Verne, California, July 11, 1975.
Amoco Production Company,	“Adsorption in Some Micellar Flooding Systems – Mahogany Sulfonate/Berea Sandstone, Kaolonite,”	Tulsa, February 27, 1976.
XIth International Mineral Processing Congress,	“Dewatering of Phosphate Slimes Using Coarse Additives,”(withs C.C. Harris and E.L. Smith Jr.)	Cagilary, Italy, April 21-26, 1975.
American Association for Dental Research Annual Meeting,	“Effect of Pretreatment with Fluoride Solution Apatite Electrochemical Properties,” (withs) S. Phillips and R. Kulkami)	New York, April 1975.
78 th National AIChE Meeting,	“Kinetics of Collector Adsorption at the Liquid/Air Interface and its Role in Flotation,” (with R.D. Kulkami)	Salt Lake City, August 18-21, 1974.

48 th National Colloid Symposium,	“Steady Flow in a Cylinder with Permeable Walls and Restricted or Unrestricted Ends,” “with K.J. Mysels)	Austin, June 24-26, 1974
AIME annual Meeting,	“Oleate Adsorption at Hematite/Solution Interface and its Role in Flotation,”	New York, February 16-20, 1975.
at the 49 th National Colloid Symposium,	“Mechanisms of Water Separation from Phosphatic Clay Suspensions (with E.L. Smith, Jr. and C.C. Harris)	Poland, June 16-18, 1975.
International Summer Conference on Chemistry of Solid/Liquid Interface,” (with E.D. Goddard)	“Adsorption of Surfactants on Solids,”	Caviat, Yugoslavia, June 1975.
78 th National AIChE meeting,	“Interfacial Chemistry of Particulate Flotation,”	Salt Lake City, August 18, 21, 1974.
Amoco Production Company	“Interfacial Properties and Adsorption Above the Critical Micelle,”	Tulsa, September 20, 1974.
Xth University Conference on Ceramic Science: Science of Ceramic Processing Before Firing,”	“Theories of Grinding,”	Gainesville, January 27, 1975.
III Inst. Tech. Research Institute,	“Selective Flocculation, Dewatering and Flotation,”	Chicago, February 13, 1975.
First International Symposium on Particle Technology,	“Effect of Coarser Particles on the Sedimentation Properties of Phosphatic Slimes,” (with E.L. Smith Jr. and C.C. Harris)	Chicago, August 22, 1973.
167 th National American Chemical Society Meeting,	“Adaptive Bubble Separation Techniques,”	Los Angeles, April 1974.

National Colloid Symposium,	“The Effect of Dissolved Hydrocarbon Gasses in Surfactant Solutions on Froth Flotation of Minerals,” (B.M.. Moudgil) 1973.	Ottawa, June 18-20,
AIME annual meeting, Environmental I,	“Thickening of Waste Phosphatic Slimes Using Coarser Materials,” (co- E.L. Smith Jr. and C.C. Harris)	Dassa, February 25, 1974.
AIME annual meeting, Fundamentals,	“Conditioning Temperature Ionic Strength Interactions Hematite Flotation,” (R.D. Kulkarni)	Dallas, February 28, 1974.
Indian Institute of Science	“Role of Interfacial Phenomena in Separation Process,”	Bangalore, August 10, 1973.
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